

The economy in 2030: enabling a sustainable future for all

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Please note these papers have been prepared as a contribution to the discussions in the breakout sessions at the National Economic Dialogue. They should not be seen as prescriptive, but rather seek to set out the current factual situation and to suggest some of the key questions which participants may wish to consider.

Setting the scene:

The Irish economy in 2030 - enabling a sustainable future for all

The theme of this year's *National Economic Dialogue* is "The economy in 2030 – enabling a sustainable future for all". The objective is to shift the focus of economic discussion towards more medium-term issues and, in doing so, gain a shared understanding of the longer-term factors that will shape economic trends and drive living standards in the future.

Beyond short-term, cyclical considerations, there is an abundance of evidence to suggest that longer-term, structural changes are underway, and these will have a profound impact on the Irish economy. While several 'slow-moving' trends have been in motion for some time, the global public health pandemic and war on European soil appear to have accelerated some of these structural economic shifts.

The annual budgetary cycle cannot be divorced from these longer-term trends, which look set to transform the Irish economy in the years ahead. Against this backdrop, the purpose of this paper is to provide an overview of the key economic forces that will shape the global and Irish economies over the remainder of this decade and beyond.

A useful framework to think about these transformative trends is the "4Ds" – demographics, decarbonisation, digitisation and de-globalisation. From an economic standpoint, each of these is summarised below.²

Medium-term outlook for the economy

Before proceeding, it is useful to briefly review the medium-term outlook for the economy. To facilitate this, the Department of Finance set out medium-range economic projections, covering the period 2023-2030, in the Government's *Stability Programme*, *April 2023 Update*.³

Helped by large-scale Government intervention, the Irish economy has weathered the pandemic and energy price shocks reasonably well. The unemployment rate is now at a historical low and consistent with (and maybe even beyond) any reasonable definition of 'full-employment'. Supply, rather than demand, is the binding constraint at present, with capacity constraints most notable in housing, healthcare and other key public infrastructure. While housing supply has recently picked-up somewhat, with completions in the last year reaching their highest level since 2008, the accumulated imbalance between supply and demand poses challenges for labour mobility and competitiveness.⁴

The forecasts envisage a moderation in the pace of economic growth (as measured by modified gross national income, GNI*) from the second half of this decade, as demographic headwinds become increasingly binding and productivity growth reaches natural limits (**figure 1a**). On a cumulative basis, the projections imply national income per capita in 2030 being around 12½ per cent higher than at present (**figure 1b**).

¹ Many of these changes will also impact on society, well-being and other areas; the focus of the Dialogue is the economy.

² This paper does not purport to be a definitive account of these trends; instead, the objective is to provide an overview of the key changes that are in train. Some of the issues (e.g. demographic trends) are explored in more detail in various Department of Finance publications.

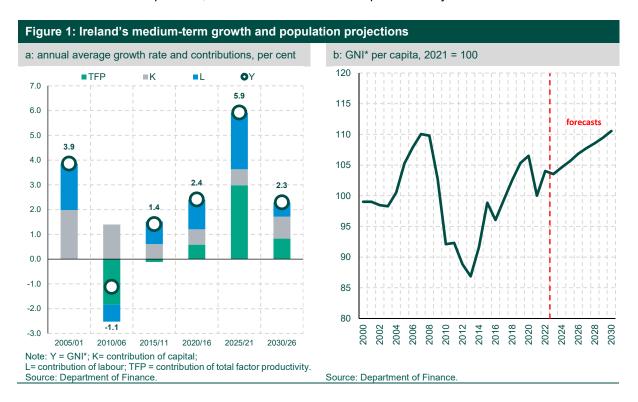
³ See *Stability Programme, April 2023 Update,* Department of Finance. Available at:

https://www.gov.ie/en/publication/e4f3a-stability-programme-update-2023/

⁴ See 'risk matrix' in *Stability Programme, April 2023 Update* (op. cit.)

Employment growth is set to moderate, simply because the supply of available labour will expand more slowly than in the past. Unemployment is projected to remain at around its 'natural' rate of around 4½ per cent on average over the period – though short-term, cyclical factors (unforeseeable at this stage) will undoubtedly result in some fluctuation around this rate over the period.

The projections are calibrated on the assumption that the era of exceptionally low inflation (less than 1 per cent) that characterised the 2010-2020 period has ended. Instead, annual price changes are assumed to revert to 2 per cent, in line with the definition of price stability in the euro area.



Structural trend #1: Demographic change

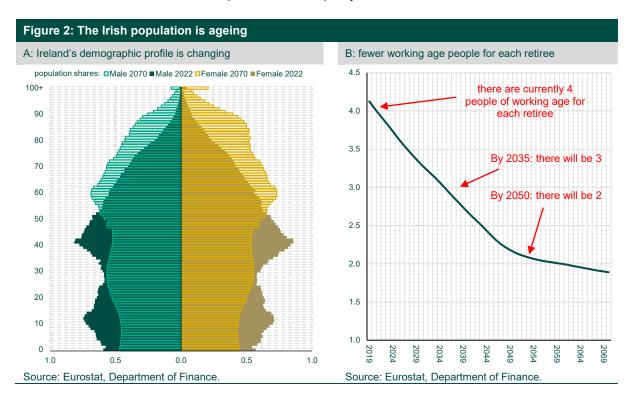
In common with other advanced countries, population ageing (the origins of which are the long-term decline in fertility rates and increases in life expectancy) is a key factor that will shape economic trends in Ireland in the years ahead. Put simply, the population aged 65+ is projected to grow significantly faster than the working age population (those aged 20-64),⁵ so that the number of older people exiting the labour force will exceed the number of young people entering.

While demographic change is a slow-moving variable, the budgetary impact is becoming increasingly visible, with pension and healthcare provision the most demographically-sensitive components of public expenditure. By the end of this decade, age-related expenditure will be €7-8 billion higher per annum relative to the position at the beginning of the decade.

Beyond this decade, demographic change is set to accelerate: the so-called 'population pyramid' in 2050 will be very different to that of today (**figure 2a**). These dynamics are also evident in the evolution of the dependency ratio, i.e. the number of dependents for every person of working age (**figure 2b**). At present, there are currently 4 persons of working age for each retiree; this is set to fall to 3 in the midpart of the next decade and to 2 by around 2050. In practical terms, this means that each person of working age is supporting a larger number of retirees.

⁵ See *Population ageing and the public finances in Ireland*, Department of Finance, 2021, available at: https://www.gov.ie/en/publication/6ba73-population-ageing-and-the-public-finances-in-ireland/

These trends are fiscally unsustainable without structural reforms. The optimum response to limit fiscal costs associated with population ageing is to gradually increase the retirement age in line with improvements in life-expectancy. However, following consideration of the *Commission on Pensions Report*, ⁶ the Government decided to maintain the State pension age at 66 years and, instead, to introduce a new flexible system whereby workers will have the choice to remain in employment until the age of 70 in return for a higher State pension. The Government has also decided that social insurance contributions will be raised at some point in order to partly offset the cost.



In addition, the Minister for Finance will bring proposals to Government to establish a long-term savings vehicle to partly (though not fully) fund the budgetary costs of an ageing population. This will be capitalised *inter alia* with 'excess' corporation tax receipts.⁷

Structural trend #2: Decarbonisation

Scientific evidence is conclusive: higher levels of CO₂ and other heat-trapping greenhouse gases (GHG) in the atmosphere have triggered a warming planet, rising sea levels and increasingly frequent extreme weather and climate events. At a global level, decades of procrastination and 'stop-start' policy responses mean that the window of opportunity to limit the economic, natural environment and social fall-out is closing rapidly; to put it another way, the risk of a tipping-point involving irreversible damage is increasingly high.

Decarbonising economic activity is a key part of the global policy response. The European *Green Deal* commits the EU Member States to cut GHG emissions and become climate-neutral by 2050. Ireland's national emissions reduction target is to reach 'net zero' across all sectors of the economy by 2050,

⁶ Report of the Commission on Pensions, available at:

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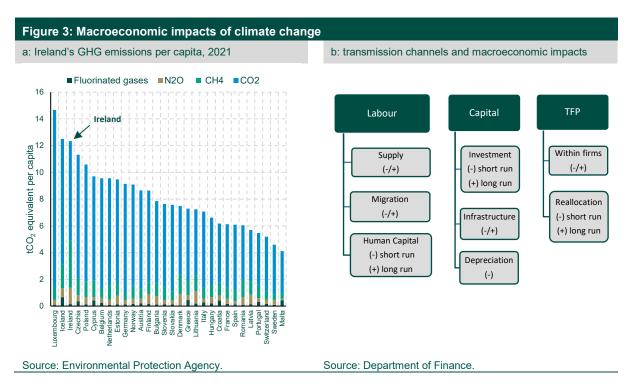
⁷ See Future proofing the public finances. Department of Finance. May 2023, available at:

https://www.gov.ie/en/publication/8a0a8-future-proofing-the-public-finances-the-next-steps/

with a reduction of 51 per cent by 2030 (relative to 2018); this equates to an average annual reduction of 7 per cent.⁸

In practical terms, Ireland will need to accelerate emission reductions across all sectors of the economy, including by altering its energy mix in order to reduce dependence of the fossil fuels that release CO₂ into the atmosphere, by transforming its electricity system, and by moving to more sustainable land use and agricultural practices. In facilitating the transition to carbon-neutrality, the Government inevitably faces important trade-offs, including the need to ensure an energy supply that is cheap, reliable and clean (fossil fuels are relatively cheap⁹ and reliable but 'dirty'; renewables are clean and cheap but less reliable).

Although Ireland reduced its emissions by just under 1 per cent between 2018 and 2021, it remains off-track in terms of meeting its 51 per cent emissions reduction target by 2030 (**figure 3a**). Recent published research by the Department of Finance also highlights economic activity still remains correlated (or connected) with GHG emissions in Ireland.¹⁰



From a purely economic perspective, the transition to (net) carbon-neutrality presents both opportunities as well as challenges, with both positive and negative effects (**figure 3b**). The Government's objective is to maximise the opportunities while minimising the challenges. From a practical point of view, the key policy objective will be to expand the green economy at a faster pace than the brown economy shrinks, *inter alia* by ensuring the transferability of skills across these sectors in order to limit frictional unemployment during the transition.

⁸ As outlined in CAP 2023. Available at:

https://assets.gov.ie/243377/92dce3ee-f19e-4645-b58a-9ece0287e41b.pdf

⁹ Notwithstanding the temporary blip in fossil fuel prices caused by the war in Ukraine.

¹⁰ See *A Conscious Decoupling: the relationship between economic activity and greenhouse gas emissions in Ireland*, Economic Insights, Department of Finance, Spring 2023. Available at:

https://www.gov.ie/en/publication/2c8b4-economic-insights-spring-2023/

To put it another way, the shift to greener technologies over the medium and longer-term will have implications for production and consumption and, hence, for the allocation of resources (workers and firms within the economy). This will involve smoothing the transition of labour and capital from brown to green activities – through upskilling and re-skilling of workers while, simultaneously, facilitating the entry of 'green' firms and supporting restructuring of activities in traditionally 'brown' firms to become more environmentally sustainable. In some instances, this may result in the exit of 'brown' firms which would need to be done in as orderly a manner as possible.

From a public finance perspective, the transition will also affect the State's revenue stream, for instance through a reduction in excise duty receipts. In addition, there will be a need to finance public investment in green capital. The cost of inaction would, however, be substantial.

Structural trend #3: Digitalisation

One of the key tenets of economics is that technology is a key driver of economic growth. Throughout history, technological innovations – the invention of the spinning wheel, the steam engine, the automobile, the personal computer, the internet – and their rollout have transformed the production process. By allowing workers perform fairly routine tasks with greater efficiency, technological advances over time have boosted productivity and raised living standards across the globe.

Advances in digital are, perhaps, the latest transformative technology, (and sometimes referred to as the 'fourth industrial revolution' (**table 1**), with these digital technologies re-shaping the nature of work. During the Covid-19 pandemic, for instance, the rapid rollout of digital technologies helped to boost the resilience of economies and societies across the globe, by facilitating *inter alia* remote working, on-line education, payment and e-commerce services. ¹¹ With the passing of the pandemic, many of these changes remain *in situ* with, for example, hybrid working (**figure 4a**) also helping contribute to climate goals by reducing commuting journeys.

	starting point	main features	drivers
Industrial revolution 1.0	1800s	Mechanisation [ag / industry]	water, steam
Industrial revolution 2.0	1870s	Mass production	electricity
Industrial revolution 3.0	1980s	Technological advancement	digital, electronic
Industrial revolution 4.0	2000s	AI / robotics / automation	computer power

A multitude of new technologies – automation, robots, artificial intelligence, nanotechnology, quantum computing and algorithmic (machine) learning – are rapidly being rolled out; as these processes are incorporated into the workplace, there are genuine questions as to whether they are a *complement* for labour (i.e. boost productivity) or a *substitute* for labour (i.e. boost unemployment).

What makes the current innovation wave stand out is the potential for automation to perform non-routine, and even cognitive, tasks. In previous waves, the mechanisation of routine tasks freed up workers to move into higher value-added employment that required greater cognitive skills (or, to put it crudely, machines replaced hands not heads). In the current wave, rapid advances in computing power

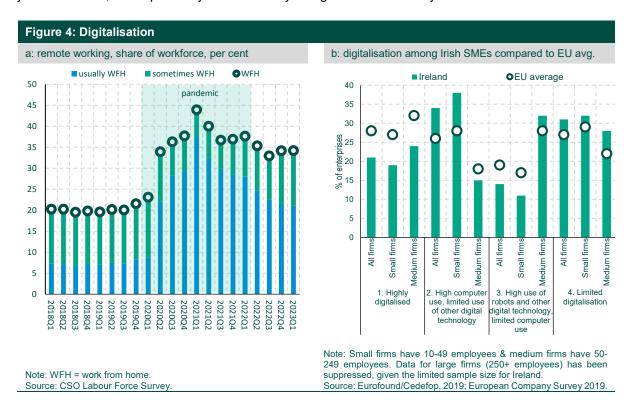
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¹¹ See We got locked down, but did we get back up again? High-frequency indicators post-Covid, Economic Insights, Department of Finance, Summer 2022. Available at:

https://www.gov.ie/en/publication/d699e-economic-insights-summer-2022/

mean that newer, cutting-edge technologies are now moving into the cognitive domain (or, again crudely, machines replacing heads).

Historical evidence does not support the idea that automation will trigger mass unemployment. Instead, technological advances are likely to render some jobs as redundant while, simultaneously, creating new jobs. However, the impact may not be entirely benign – there will likely be both winners and losers.



Policy has a key role in this regard, harnessing the benefits of these technological advances and minimising their potential adverse impacts. Labour market institutions, for instance, must be able to anticipate future skill needs and match them with the current skills base. In addition, given the disruptive nature of these technologies, a 'race to the bottom' must be avoided, suggesting a role for global guardrails (e.g. common principles regarding transparency and accountability). In summary, policy must ensure that these technologies remain a force for good.

Despite the rapid acceleration in digitalisation over recent decades, productivity growth is beginning to slow at the aggregate level across EU countries. The main driver of this slowdown is the increasing divergence between productivity and digitalisation driven by the cost of financing investments in intangible assets – especially for smaller firms. In an Irish context, the difference in digitalisation between Ireland and the EU average is most pronounced for small firms, while Ireland also remains well-below the EU average for all "highly digitalised" firms (**figure 4b**). These growing disparities in access to technology and intangibles have resulted in widening productivity gaps between small and large firms, as well as rising cross-firm dispersion in average wages and adjustment costs. The strong position of the information technology sector in Ireland suggests that the country could be well-positioned to benefit from increased digitalisation. The extent of concentration of this sector in a relatively small number of very large firms also brings considerable exposure that idiosyncratic shifts in market structure and decisions by individual firms bring negative macroeconomic and fiscal effects.

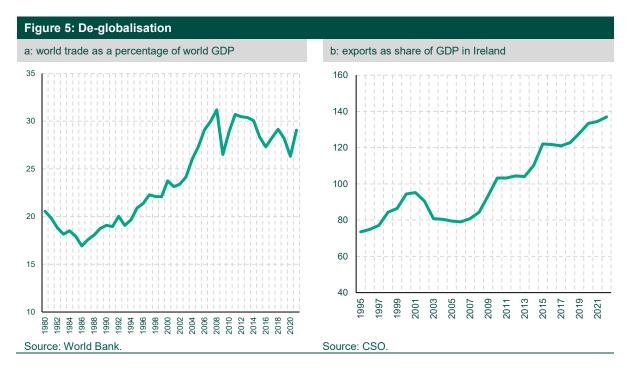
Structural trend #4: De-globalisation

After rapid expansion from the mid-1980s onwards, global trade as a share of output has essentially moved sideways since the global financial crisis in the late-2000s (**figure 5a**). This has led to some suggestions that 'peak globalisation' has passed and that global economic integration may be reversing. While this trend is not universally accepted, it is certainly true that the pandemic exposed vulnerabilities in transnational business models involving elongated, and complex, global supply chains.

Furthermore, the passing of the pandemic was immediately followed by the Russian invasion of Ukraine, which further exposed 'choke points' in supply chains, with both Russian and Ukraine being important commodity exporters (initially, choke points threatened mass starvation in low-income countries dependent on grain imports from Ukraine). Geopolitical tensions elsewhere are also relevant in the analysis of supply chains: the vast majority of high-specification semi-conductors, for example, are produced in Taiwan and any supply disruption could have major implications for the global production of electrical goods.

In summary, there is a very real risk that the global economy could increasingly fracture along geopolitical lines, with countries aligning different strategic poles. From a purely economic perspective, such a multi-polar world would reverse many of the gains from globalisation, including lower prices, higher productivity and access to a wider variety of goods and services.

Re-shaping supply chains in order to build resilience and boost economic security is likely to be a feature of the post-pandemic global economy. Risk-reduction strategies in this context could include a reshoring of production ('localisation'), 'friend-shoring', or diversification, with the first of these potentially reducing globalisation further while the latter two may see the same levels or increased trade but with patterns shifting across countries.



Ireland is a highly globalised economy (**figure 5b**), and a key part of global supply chains in many sectors. The globally connected nature of Ireland's trade, technological and financial relationships means that while Ireland is a beneficiary of global growth, it is always vulnerable to external shocks, including sector-specific shocks.

Finally, a global de-coupling could also lift the lid on many of the forces that kept inflation low in recent decades; this would involve *inter alia* higher borrowing costs into the future.

Conclusion

Long-standing structural changes are now coming to the fore, and there can be no room for complacency. Despite remarkable resilience in the face of unprecedented shocks in recent years, neither the economy nor the public finances are bullet-proof. Powerful forces are reshaping the world economy, and past success is no guarantee for future success.

While structural changes tend to be slow-moving, the global public health pandemic and war in Europe have added an additional impulse.

Navigating these potentially de-stabilising transformations will be crucial for Ireland's continued economic advancement. To boost resilience, there is clearly a premium on up-skilling and re-skilling. Enhancing the stock of physical infrastructure, including green infrastructure, will also help smooth the transition. Greater flexibility and adaptability are also part of the solution.

From a public finances perspective, counter-cyclical budgetary policies, alongside measures that boost the quality of public spending and the efficiency of the taxation system, can play a key role in helping to absorb the tectonic shifts underway.

BREAKOUT SESSION 1:

SUSTAINABLE PUBLIC FINANCES AND MEDIUM-TERM GROWTH

CHAIR: Minister for Finance, Michael McGrath, T.D.

RAPPORTEUR: Mr. Seamus Coffey, University College Cork

POTENTIAL ISSUES/QUESTIONS FOR DISCUSSION

- 1. How can budgetary policy be calibrated in order to avoid adding to inflation?
- 2. What would be the appropriate response to a sharp fall in corporation tax receipts?
- 3. How can value-for-taxpayers-money be ensured in an environment where demand exceeds supply?
- 4. What is the best way to invest 'windfall' corporate tax receipts to help address long-term fiscal pressures?
 - a. What proportion of windfall receipts should be transferred to a long-term savings vehicle vs. used for debt reduction vs. a possible increase in public capital investment?
 - b. How can the appropriate balance be struck between using these receipts to assist with short-term challenges and long-run structural issues?

Background: a mixed economic outlook

Three inter-related headwinds have weighed on economic activity over the past year or so. Firstly, Russia's invasion of Ukraine triggered a severe energy price shock and brought about multi-decade high rates of headline inflation. Secondly, the energy price shock combined with a more generalised imbalance between demand and supply has resulted in the broadening of price pressures, with exceptionally high rates of inflation for non-energy goods and services. Finally, in response to the persistent price pressures, aggressive monetary policy tightening has been a key feature of advanced economies, raising the cost of borrowing for both businesses and households.

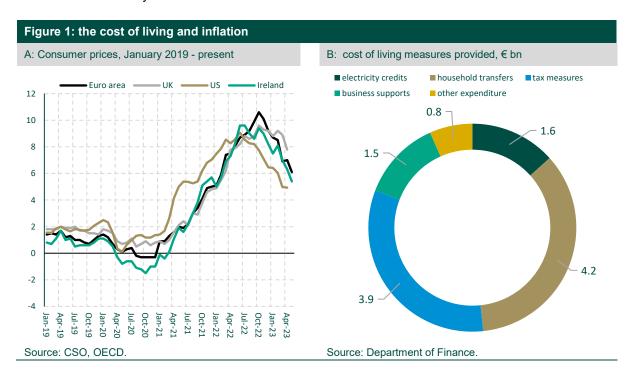
In Ireland, headline (HICP) inflation peaked at 9½ per cent in the third quarter of last year, and is now on a downward trajectory (**figure 1a**). Core inflation (the headline figure excluding energy and unprocessed food prices), however, remains high, indicating demand for goods and services continues to exceed supply.

The Irish economy has absorbed these shocks as well as could be expected, in no small part due to the supports put in place by Government (**figure 1b**). Unemployment is effectively at its lowest rate ever, with the number of people in employment now over 2.6 million.

Looking ahead, an average inflation rate of 4.9 per cent for this year is currently projected; the corresponding figure for core inflation is 4.4 per cent. As inflationary pressure ease, real household disposable income is set to recover and this should support consumer spending growth. The fading of the energy price shock should also support higher capital spending by firms.

Against this backdrop, the outlook is for Modified Domestic Demand (MDD) growth of just over 2 per cent this year, with growth of 2½ per cent expected for next year. These rates of growth would be consistent with employment growth of around 1½ per cent this year and next, resulting in an unemployment rate in line with any reasonable estimate of 'full employment'.

This relatively benign scenario is far-from-assured, however, with a highly uncertain external backdrop at present. Further disruption to energy supplies, heightening of geo-political tensions, or a deterioration in global financial conditions would affect the world economy, and the Irish economy could not be immune. Economic activity is highly concentrated in a relatively small number of sectors and a shock to these sectors would have a disproportionate impact on the Irish economy. All-in-all, risks to the short-term outlook are firmly tilted to the downside.



Positive headline figures conceal fiscal vulnerabilities

As the pandemic receded, temporary public expenditures were unwound while, in line with the rebound in the wider economy, tax revenues have increased strongly. As a result, the public finances have recovered with, for this year, a general government surplus of €10 billion (3½ per cent of GNI*) in prospect.

However, the very robust headline figures obscure real vulnerabilities that have continued to accumulate below the surface. Corporation tax receipts last year stood at €22½ billion, a five-fold increase on their level a decade ago. While these receipts averted the need for even more borrowing during the pandemic, the corporation tax yield has become increasingly disconnected from domestic economy activity.

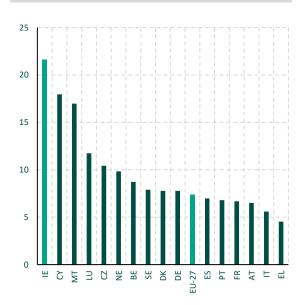
Moreover, almost 60 per cent of corporate tax receipts were paid by just ten large firms, with research suggesting that as few as three large payers account for a large portion of this. 12 This degree of concentration is without precedent (**figure 2a**), and leaves the public finances vulnerable to the business decisions of a handful of highly profitable multinational companies.

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¹² See: https://www.fiscalcouncil.ie/understanding-irelands-top-corporation-taxpayers/



A: corporation tax as a share of tax revenue, per cent



Note: comparison data relate to 2021 and use the Eurostat definition of tax revenue (including social contributions). Ireland = 2022 outturn.

Source: Eurostat, Department of Finance calculations.

B: underlying general government balance, € billions



Note: GGB* excludes estimates of windfall corporation tax. Source: Department of Finance calculations.

The Department estimates that 'windfall' corporation tax receipts – that is the amount that cannot be explained by underlying drivers and, therefore, may be more vulnerable to a shock – amounts to almost €12 billion or approximately half of the corporate tax take. If these potentially unsustainable receipts are excluded, the fiscal accounts would be in deficit (**figure 2b**).

Changes to the international tax regime (i.e. the implementation of the OECD BEPS agreement) are likely to negatively affect receipts in the coming years. While the exact impact of the agreement is subject to considerable uncertainty, the Department's central estimate is that €2 billion in revenue could be lost. Others have suggested a larger shock to revenue: S&P, for example, has suggested that €4 billion in receipts may be at risk.¹³

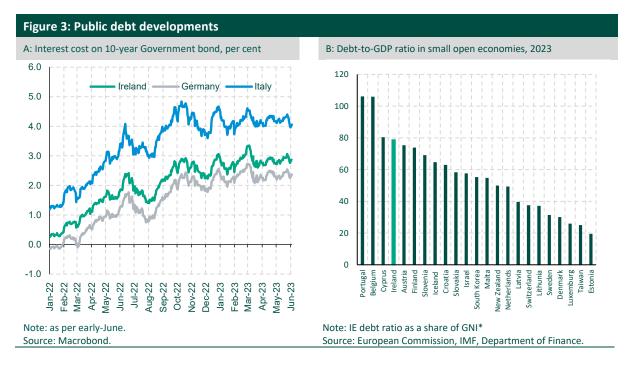
Analysis by the Department¹⁴ shows that the reliance of the public finances on the multinational sector is not limited to corporation tax: approximately one-third of income tax receipts and a significant proportion of VAT is similarly linked to this sector, meaning that adverse developments would have implications for the public finances across a number of channels.

Government has acted to mitigate this vulnerability: over the last year, €6 billion in 'windfall' receipts has been transferred to the *National Reserve Fund* to rebuild fiscal buffers. However, minimising this risk over the medium-term will require consistent and careful budgetary management. In the *Summer Economic Statement 2021*, Government set out a medium-term budgetary strategy which allows for continued investment in public services while ensuring public expenditure remains at sustainable levels by linking growth in core current public spending to the trend growth rate of the economy.

¹³ See: https://disclosure.spglobal.com/ratings/en/regulatory/article/-/view/type/HTML/id/2989589

¹⁴ See: https://www.gov.ie/en/publication/a6312-annual-taxation-report-september-2022/

At a time when borrowing costs are on a rising trajectory and Ireland's level of public debt remains among the highest in the developed world on a per capita basis, keeping the public finances on a sustainable path takes on an even greater urgency. Public debt this year is projected at €224 billion: almost 80 per cent of GNI* (figure 3b). A stock of public debt on this scale can be managed, but only if the appropriate policy stance is in place.



Demographic costs and other transitions

Current demographic trends mean that, relative to the situation at the beginning of this decade, agerelated expenditure will be around €7-8 billion higher by the end of this decade simply to maintain existing levels of service. The considerable headline budgetary surpluses in prospect over the next several years means there is now a chance to address this looming fiscal challenge, but, crucially, the window of opportunity is rapidly closing: it is essential that action is taken now.

In May, the Department published an analysis ¹⁵ outlining a range of options for the establishment of a long-term wealth fund to help to address future age-related expenditure costs. This proposal differs from the *National Reserve Fund* currently in place as the proposed fund would prioritise the return on investment whereas the *Reserve Fund* is a short-term vehicle focussed on maximising liquidity, to be used to fund emergency expenditure in the event of unforeseen shocks to the economy.

There are many issues to be decided in relation to the precise operation of such a fund, and these will be decided in the coming months.

The unprecedented events of the last several years – the UK's exit from the European Union, the pandemic and the war in Ukraine – have highlighted Ireland's status as a small open economy heavily exposed to changes in the global economic environment. Geopolitical factors have slowed the pace of, or possibly even reversed, global economic integration; the need to build supply chain resilience could trigger a shortening of supply chains. Ireland has been one of the main beneficiaries of global integration in recent decades and could not be immune if these trends were reversed.

¹⁵ https://www.gov.ie/en/publication/8a0a8-future-proofing-the-public-finances-the-next-steps/

From a public finance perspective, Government will need to finance the digital and carbon transitions. These transitions offer opportunities as well as challenges. The ultimate policy goal must be to maximise the opportunities while minimising the challenges. ¹⁶

Conclusion

Careful budgetary management was crucial in allowing Government to respond in a decisive manner to protect the economy during the pandemic and, more recently, the energy price shock.

Government will continue to strike the balance between improving public services in the short- and medium-term and ensuring long-term fiscal sustainability. Major challenges are now firmly on the fiscal radar, and short-term budgetary policy cannot be divorced from these.

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¹⁶ Discussed in more detail in the preceding section: Setting the scene.

BREAKOUT SESSION 2:

BETTER PUBLIC SERVICE DELIVERY: MAXIMISING THE IMPACT OF PUBLIC SPENDING

CHAIR: Minister for Public Expenditure, NDP Delivery and Reform,

Paschal Donohoe, T.D.

RAPPORTEUR: Professor Orla Doyle, University College Dublin

POTENTIAL ISSUES/QUESTIONS FOR DISCUSSION

- 1. Performance budgeting and the well-being framework provide an opportunity to shift the focus of budget discussions beyond financial allocations to more explicit identification of the outcomes we want to achieve in key priority areas. It also allows for a more comprehensive understanding of progress towards Government priorities that span multiple different sectors or departments, and promotes more cohesive policymaking to help achieve these priorities. Are there specific cross-sectoral policy issues or challenges that should be prioritised for consideration using this broader results-focused and collaborative approach, in order to maximise the impact of public spending?
- 2. Similarly, at budget time the focus naturally gravitates towards additional or incremental funding allocations rather than how efficiently existing funding is being used. How can we ensure that we retain a continued focus on maximising the efficiency and effectiveness of existing public expenditure, as well as considering the need for new measures?
- 3. What are the key areas of focus for improved service provision in the years ahead, and what key indicators or metrics should we use to measure performance in improved service delivery for the public?
- 4. Over the course of the last few years, Ireland has shown itself to be resilient in the face of events and decisions made beyond our shores that have impacted on public policy. What can we do to strengthen Ireland's ability to cope with future challenges that may arise and ensure that we maintain a high level of resilience into the future?

Background

The Department of Public Expenditure, NDP Delivery and Reform is responsible for the delivery of a strategic, consistent and coherent approach to budget management that seeks to maximize the impact of public expenditure and public services, in a sustainable way over the medium to long term. A key pillar of this approach is delivering a responsible and responsive expenditure strategy that delivers sustainable improvements for people, communities, the climate and the economy.

As a result of sound governance of the budgetary process, robust policy advice and evaluation, transformation initiatives and broad stakeholder engagement significant transformation of public services have been achieved over the last decade.

A key enabler of this transformation has been the increase in gross voted expenditure, which will reach over €91 billion in 2023. To ensure that economic growth is maintained and we can continue to invest in quality public services we must ensure that our budgetary strategy is sustainable and targeted at initiatives that will meet the needs and improve the lives of the people of Ireland.

While on Budget day each year there is often a focus on additional or "new" initiatives, this amounts to only a fraction of the totality of expenditure allocated to provide the wide range of vital public services. It is important to have transparency around all the building blocks used to deliver progress. The Budget Day Expenditure Report alongside the Revised Estimates Volume set out the allocation of resources across the different Government Departments and agencies each year. The Public Service Performance Report provides greater detail regarding how these resources are being utilised to deliver the outputs and outcomes associated with budget allocations.

More recently, initiatives aimed at measuring the impacts of spending as a whole on people's lives from a variety of different perspectives has been progressed through the development of the <u>Well-being Framework</u> and well-being budgeting. The well-being framework includes 11 separate dimensions that capture the broader range of direct and indirect impacts of policy decisions, including mental & physical health, the environment, participation in society, and income & wealth (see Figure 1 for full list). This approach allows consideration of different policy areas simultaneously rather than sequentially or in isolation, and can facilitate more joined up policy making with a focus on improving the collective well-being of the people of Ireland over time that go beyond the more traditional economic indicators such as Gross Domestic Product (GDP).

Figure 1 Dimensions within the Well-Being Framework (Source - Understanding Life in Ireland: The Well-being Framework, Department of the Taoiseach, 2022)



Measuring policy outcomes to deliver service impact

In May of this year, the Department of Public Expenditure, NDP Delivery and Reform (DPENDR) published <u>Better Public Services – a transformation strategy to deliver for the public and build trust</u>. The strategy sets out a vision to deliver inclusive, high quality public services that meet the needs and improve the lives of people in Ireland.

Over the past decade, the needs of the people of Ireland have changed dramatically:

- The population has grown by ten percent, including through increased migration,
- The number of people with disabilities in the country has increased considerably including increased requirements to provide for special educational needs
- Major social challenges have arisen including the need to respond to a shortfall in housing provision and to address crises such as the COVID-19 pandemic and the war in Ukraine.

As it looks to the future, DPENDR is seeking to address challenges around current levels of service provision, to maximise the impact of public expenditure to ensure the best outcome for people, communities and the climate, and to plan for the changing needs of the different society we will have in the future. A central component of maximising the impact of public spending is ensuring that we use available resources in the most cost-effective way, taking into account the inevitable trade-offs that exist between different policy goals, and the potential long term implications of policy measures.

While these are long-standing issues faced across Government Departments, the increasingly crosscutting nature of policy challenges such as climate change and population ageing have added additional complexity to the task of ensuring that the resource allocation decisions we make today bring about a sustainable future for all. Within DPENDR we are working to address some of these challenges through the use of performance budgeting tools such as well-being, green and equality budgeting, which aim to bring a greater level of transparency and accountability to how public money is being spent, and to strengthen the link between expenditure allocations and the delivery of key public service outputs and outcomes.

Some issues for consideration and discussion in relation to this include:

- Over the course of the last few years, the Government has introduced a series of initiatives to promote greater transparency on how public funding is being used to achieve Government objectives and provide greater insight into how public policy is impacting on people's lives and society. The way in which these initiatives have been designed means that they could also facilitate greater consideration of how the needs of the present could be met without compromising the ability of future generations to meet their own needs.
- Since 2011, the Performance Budgeting initiative has sought to shift the balance of emphasis away from a single focus on the provision of resources to one that is more concerned with how public resources are used to support the implementation and delivery of policies and programmes and the results or impacts of these services on people's lives and society more generally. A key output of the performance budgeting work programme is the annual publication of the Public Service Performance Report, which provides a clear and accessible picture of how public funds have been allocated, how those funds have been used and the impact of this spending on our society.
- As alluded to above, the Well-being Framework for Ireland presents a vision of "enabling all our people to live fulfilled lives now and into the future". The multidimensional Framework provides a well-rounded, holistic view of how Irish society is faring and it is being developed in a way that will facilitate its utilisation within the policy making process.
- In terms of thinking about a sustainable future for all, the Green Budgeting initiative brings a more specific focus on embedding climate and environmental goals within the budgetary process itself. Since 2018, Ireland has implemented a series of progressive green budgeting reforms, seeking to increase transparency and effectiveness in climate policy, and allowing for policy making that will promote and achieve improved environmental outcomes.

- In thinking about the impact of public policy on people's lives, and in particular with a focus on sustainability, it is important that the policy process also considers questions of equality. While improving the lives of people in general is important, any consideration of the impact of public policy should also consider how the impact of public policy can differ between groups of people. The Equality Budgeting initiative seeks to enhance budgetary processes and policy proofing by focusing attention on questions of advancing equality, reducing poverty and strengthening economic and social rights. In particular, these questions enhance budgetary decision-making by bringing to the fore evidence about the likely impact of budgetary options and decisions, facilitating the integration of equality concerns into the budgetary process and highlighting the risk of unintended consequences.
- Over the course of the last decade, these initiatives, combined with an evidence-for-policy focus
 and increased policy analysis capacity within the public service, have contributed to the
 development of a performance framework that will provide the foundations for how public policy
 will maximise the impact of public spending and enable a sustainable future for all, both in terms
 of our public finances and the delivery of effective public services both today and into the future.

BREAKOUT SESSION 3:

CHARTING A SUSTAINABLE PATH TOWARDS ACHIEVING OUR NATIONAL CLIMATE ACTION OBJECTIVES

CHAIR: Minister for the Environment, Climate and Communications

and Minister for Transport, Eamon Ryan T.D.

RAPPORTEUR: Professor Eleanor Denny, Trinity College Dublin.

POTENTIAL ISSUES/QUESTIONS FOR DISCUSSION

- 1. The Climate Action Plan outlines the breadth of measures that need to be taken across all sectors of the economy to achieve our climate goals, and is updated annually in line with emerging information on emissions and abatement strategies. How should we seek to prioritise among all of the available options for achieving emissions reductions within each sector, to ensure we maximise the value for money of our national response to climate change?
- 2. Halving our emissions by 2030 will require significant efforts from both the private sector and individuals, as well as Government. What are the barriers and facilitators of achieving a cohesive and effective 'whole-of-society' response that mobilises private finance and brings about positive behavioural change among households and individuals?
- 3. As recent events have proven, our approach to climate action needs to be responsive and agile enough to adapt to evolving political and economic circumstances, and a changing geo-political landscape. What are the main external and internal threats or opportunities to sustaining progress towards our climate goals, and how can we mitigate or capitalise on them?
- 4. How policy challenges are conceptualised and communicated can influence the choice of policy response, and the level of trust and buy-in from all stakeholders. What opportunities exist to improve how climate action is framed from an economic and social policy perspective?

BACKGROUND

The Programme for Government commits to the achievement of an average annual reduction in greenhouse gas emissions of 7% a year to 2030 to reach a 51% reduction in emissions by the end of the decade and to achieve net zero greenhouse gas emissions no later than 2050. This ambition is underpinned by the Climate Action and Low Carbon Development (Amendment) Act 2021.

This legislation established a legally binding framework for climate change that included the development of carbon budgets setting out the total greenhouse gas emissions allowable if we are to halve our emissions by 2030. These carbon budgets were then allocated across various sectors of the economy to provide a more detailed breakdown of the total amount of permitted greenhouse gas emissions that each sector of the economy can produce during a specific time period. These Sectoral Emissions Ceilings, as they are called, were approved by Government in July 2022.

The contribution required from each of these sectors is illustrated in Figure 1 below, which shows the percentage reduction in greenhouse gas emissions required by 2030.

Figure 1 Percentage Greenhouse Gas Emissions Reductions by Sector (Source: Climate Action Plan 2023 Summary Document)

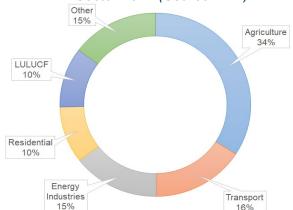


Ireland also has commitments under the Paris Climate Agreement and other EU climate legislation, including those contained in the 'Fit For 55' package that set out a range of new initiatives designed to support the EU's target of reducing overall greenhouse gas emissions in Europe by at least 55% by 2030, and to achieve climate neutrality (net zero greenhouse gas emissions) by 2050.

Performance to Date

Achieving Ireland's national and international commitments for reduction of greenhouse gas (GHG) emissions will be challenging for all sectors of the economy. To date, we have seen relatively modest reductions in emissions relative to 2018. The latest projection data from the Environmental Protection Agency (EPA) shows that Ireland is not currently on track to meet the 51% emissions reduction target by 2030, with a c.4% overall reduction in GHG emissions projected from 2018 to 2022. While GHG emissions in Ireland reduced by 3.4% in 2020 due to decreased economic activity as a result of the COVID-19 pandemic, emissions rose by 5.1% in 2021 as some sectors began

Figure 2 - Greenhouse Gas Emission by Sector 2021 (Source EPA)



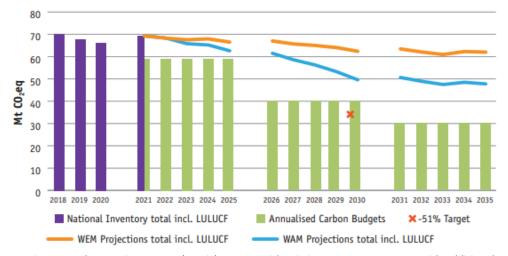
LULUCF = Land Use, Land-use Change and Forestry

to emerge from public health restrictions. In 2021, the largest contributor to our overall emissions was the agriculture sector, which accounted for a third of all emissions, followed by transport (16%) and energy (15%). See Figure 2 for a complete breakdown of emissions by sector in 2021.

Based on the current trajectory, the EPA projects Ireland will achieve emissions reductions of 29% by 2030 if all plans and measures identified in Climate Action Plan 2023 are implemented, which highlights the need for a sustained focus on building on the work to date and continuing to enhance progress on

climate action in the years ahead. Figure 3 shows how the projected scenarios relate to both performance since 2018 and the Carbon Budgets provided for in legislation.

Figure 3 - Annualised carbon budgets and projected emissions (Mt CO2 eq) under the With Existing Measures (all plans in place at end-2021) and With Additional Measures (all CAP23 measures) scenarios



Source: Environmental Protection Agency (epa.ie) WEM – With Existing Measures; WAM – With Additional Measures, LULUCF – Land Use, Land Use Change and Forestry

Key measures committed to as part of the national Climate Action Plan to reduce emissions include;

- Significant expansion of renewable electricity generation, to reach 9 GW of onshore wind energy, 8 GW of solar energy, and 7 GW of offshore wind energy production by 2030, in parallel with the phasing out of coal and peat electricity generation
- Greater energy efficiency within the built environment, through the completion of 500,000 B2 retrofits and the installation of heat pumps in 680,000 new and existing dwellings by 2030.
- Reducing transport emissions by cutting car journeys by 20%, ensuring that nearly 1 in 3 cars
 is electric by 2030, and supporting a shift to more sustainable transport whereby walking,
 cycling and public transport account for 50% of our journeys.
- Reduced use of chemical nitrogen fertilizer in the agriculture section, along with the expansion
 of organic farming to 450,000 hectares and tillage to 400,000 hectares, and using anaerobic
 digestion to reach 5.7 TWh of biomethane production (a more environmentally-friendly natural
 gas substitute) by 2030.

Climate Action & Sustainability - Challenges and Opportunities

Given the scale of the transition needed to avoid the worst impacts of climate change, it is vitally important that we ensure that our national policy response delivers the best possible value for money consistent with the sustainable management of the public finances.

Cost-effectiveness is therefore a key concern when selecting which measures to implement and how to implement them, so that we maximise abatement at least cost. Key to this is developing systems for prioritising measures based on knowledge of their relative impact on emissions combined with robust estimation of their direct and indirect costs. In practice, however, policymakers inevitably have to make decisions in the face of incomplete information and high levels of uncertainty. The National Economic Dialogue provides an ideal opportunity for hearing your views on how we can improve this, and how all stakeholders can contribute to the conversation about how best to prioritise measures that will achieve our targets in the most cost-effective manner.

An integral part of this will be consideration of how the costs and benefits of climate action are distributed across society. This Government has committed to a just transition to carbon neutrality, in which no sector of society or community is left behind. Equally it is important to ensure that the costs of climate action are distributed fairly across both the public and private sector, and that the right economic environment and regulatory framework are created to effectively mobilise private investment.

At a societal level, behavioural change has a crucial role to play in limiting climate change and protecting our environment for future generations. This will require individuals, households and firms to think about how they utilise resources and what changes can be made to promote a low-carbon circular economy that benefits everyone. This again is something that requires broad stakeholder engagement to create the degree of trust and buy-in required for these to be successful. We are keen to hear your views on innovative ways to tackle this problem as part of the National Economic Dialogue.

As recent years have shown, unexpected new challenges can arise at any time, so it is important that our climate action strategy is both resilient, adaptive, and embedded within the public policymaking process. This will not only ensure that we can overcome unforeseen setbacks, but also that climate considerations are factored into decision making across the entirety of the public service, to take account of any direct or indirect impacts that policies may have on the environment.

The questions posed at the start of this paper are intended to help guide the discussion around many of these issues, with a view to eliciting the views of a diverse range of stakeholders. This will help to generate valuable insights into how to develop innovative approaches to implementation and frame climate action in a way that inspires people and enhances participation across all sectors of society, so we can chart a sustainable path to achieving our climate objectives.

BREAKOUT SESSION 4

BUILDING A COMPETITIVE BUSINESS ENVIRONMENT

CHAIR: Minister for Enterprise, Trade and Employment, Simon

Coveney T.D., and

Minister for Further and Higher Education, Research,

Innovation and Science, Simon Harris T.D.

RAPPORTEUR: Dr. Conor O'Toole, The Economic and Social Research

Institute.

POTENTIAL ISSUES/QUESTIONS FOR DISCUSSION

- 1. What are the key competitiveness challenges in the Irish business environment and what actions need to be prioritised in the long-term in areas such as capital investment and the National Development Plan?
- 2. What can we build on to improve competiveness for indigenous enterprise?
- 3. What actions may need to be taken to maintain competitiveness into the future in high value added portions of the economy and are there any potential trade-offs that may need to be made?
- 4. How can investment in skills influence the productivity of firms and assist in tackling the current and future challenges presented by a changing global economy?
- 5. How can we encourage workers and employers, in particular in terms of SMEs, to engage more with the skills infrastructure and lifelong learning?

Introduction

Ireland's enterprise sector has faced many challenges in recent years from Brexit, pandemic related supply chain disruptions and more recently the impact of the War in Ukraine on energy prices. These have contributed to an inflationary environment, exposed new pressures such as increasing costs, rising interest rates, and labour market shortages.

In the face of such challenges, our overall competiveness objectives remain the same. We require actions to promote sustainable growth and the development of indigenous enterprise which also making Ireland more attractive for Foreign Direct Investment. The *White Paper on Enterprise 2022-2030*, published last December, outlines a vision to enable Irish-based enterprise to succeed. Success through competitive advantage founded on sustainability, innovation and productivity and delivering rewarding jobs and livelihoods.

The White paper aligns with our wider Climate Action targets under the *Climate Action Plan*. It has integrated actions to embed decarbonisation into our enterprise policy and to achieve our net zero commitments to reduce emissions from Industry by 35% in 2030. The White Paper also has a focus on digital transformation with actions set out to accelerate adoption of digital technologies across enterprise with a view to achieving target of 90% of SMEs at Basic Digital Intensity by 2030.

In the broader geo-political policy context, developments in Industrial Policy in the US and shifting trade winds in industrial policy at EU level could also impact our business environment, as larger economies seek to incentivise the location and relocation of industry through the use of subsidies.

Ireland's Competiveness in Perspective

An International comparator exercise, the *IMD Competiveness Yearbook* which assesses and rank the competiveness of 63 economies across the world, has indicated a strong performance for Ireland, where Ireland improved two positions from 13th to 11th place in 2022. Amongst the Euro area countries, Ireland was ranked the 3rd most competitive economy.

The IMD scorecard assesses performance across four pillars including:

- 1. **economic performance** which includes factors such as domestic economy, trade, employment and prices,
- 2. **government efficiency** which includes factors such as public finance, tax policy, institutional framework and legislation,
- 3. **business efficiency** which includes factors such as productivity, labour market and finance, and,
- 4. **infrastructure** which includes factors such as basic infrastructure and technological infrastructure, health, environment and education.

Ireland's strong economic recovery in 2022 contributed to the overall ranking this year, and performance was driven in higher scores in economic performance and government efficiency while the business efficiency indicator remained unchanged. Ireland's performance on infrastructure has consistently been lower than the other indicators and deteriorated in 2023, due to poor scores in basic infrastructure and a relatively low score in technological infrastructure.

The National Competiveness and Productivity Council's *Competiveness Scorecard 2023*, published last month indicates that Ireland remains broadly competitive due to macroeconomic fundamentals, demographics, talent, skills, business and government efficiency and quality of life indicators however areas for improvement include energy, infrastructure spending on R&D and venture capital and interest costs to business.

Key Challenges

This paper largely focuses on four key challenges to competiveness including the business environment, infrastructure, energy, climate change and sustainability and knowledge, talent and skills.

1. Business Environment

Economic Performance

The Stability Programme Update has observed the easing of energy prices and a general improvement in the external economic outlook. The resilience is most apparent in the labour market, where the rate of unemployment remains close to historical lows and is broadly consistent with any reasonable estimate of full employment. A consideration in this context is the 'carrying capacity' of the State and the economy more generally to deliver services at levels of full employment.

Business Efficiency

In terms of cost competitiveness, the White Paper notes that many of the drivers of recent inflation are outside of the Government's control and it proposes to progress reforms by increasing competition in key sectors such as banking and finance.

Following the war in Ukraine, there was an increase in business supports including cost of living measures. These assisted businesses with rising energy costs: schemes such as the Temporary Business Energy Support Scheme (TBESS); Ukraine Enterprise Crisis Scheme and credit supports such as the Ukraine Credit Guarantee Scheme. It has been observed that there has been a relatively modest demand for energy supports from businesses with €95m in approved claims for TBESS (as of 25th May 2023) from an allocation €1.3 billion in 2022 and 2023. These supports were preceded by

Covid-19 supports which were unwound in 2022, however the full impact of the unwinding of supports over the next few years is as yet unknown. A Central Bank report from 2022 has indicted that the unwinding of pandemic supports and onset of inflationary pressures may expose the full level of latent distress in the economy.

Further challenges faced by businesses include the scale of venture capital investment and the relative cost of credit. Access to finance is essential for investments to improve productivity and for enterprises seeking to scale-up. Despite being in the single currency area, the rate of interest paid by Irish non-financial businesses has been higher than the euro area average since 2017. In recent years, SBCI and Microfinance Ireland have broadened the finance options open to enterprise.

Other challenges to the business environment include SME competiveness and productivity, which requires examining ways to improve competiveness in the indigenous enterprise base. Digitalisation and automation and recent developments in machine learning and artificial intelligence are also key challenges.

Administrative Efficiency

Public finance, taxation policy and regulation can also impact on competiveness. A recent Report of the Commission on Taxation and Welfare notes that Ireland continues to offer a competitive taxation regime with a range of targeted incentives and expenditures aimed at attracting inward investment, encouraging R&D, entrepreneurship and investment in scalable enterprises. The White Paper notes that reducing the tax compliance burden benefits all enterprises, and there are particular opportunities to further enhance the tax landscape for SMEs.

Ireland's planning system is a key component of the broader regulatory environment and planning delays, including those arising from legal proceedings, have been highlighted in the White Paper as a barrier to the timely delivery of essential infrastructure, including housing, transport and energy. The planning system is currently under review and new legislation has been proposed for this area.

2. Infrastructure

The revised National Development Plan (NDP) incorporates an investment package of €165 billion over the years 2021-2030 with a commitment to maintain capital expenditure at an average level of 5% of GNI* over the period to 2030. The availability of infrastructure and related services is critical to a competitive business environment.

While there has been a significant increase in gross budgeted capital expenditure across housing, transport, education and health since 2019, there has been challenges in delivery. Labour market constraints are further impacting on delivery of key capital projects and infrastructure.

Affordable housing is a requirement to attract and retain international a skilled workforce and international investment. In terms of capital spending, just under 30,000 housing units were completed last year. Non-residential building and construction investment benefited from outlays of €10.2 billion under the National Development Plan, while there is some evidence that investment in commercial real estate may have peaked. Pipeline data points to a slight moderation in the level of completions this year, while the higher interest rate environment represents a further headwind for new housing starts.

Actions aimed at enhancing project delivery for the NDP include changes to reduce the administrative burden in delivering major capital projects, capacity reviews of Departments with major capital expenditure projects, reforms to the Capital Works Management Framework and Minister Donohoe will now take a direct role in overseeing delivery of the NDP through chairing the Project Ireland Delivery Board. An independent evaluation of NDP priorities and capacity will be conducted over the coming months. The Construction Sector Group ensures regular and open dialogue between Government and the construction sector in relation to significant issues relating to the successful delivery of the NDP.

The National Broadband Plan rollout is progressing and as of 14 April 2023 over 147,600 premises can order or pre-order a high-speed broadband connection across 26 counties, with over 135,500 premises passed and available for immediate connection. Covid-19 gave rise to unavoidable delays over 2020 to 2021 which resulted in a delay of over 8 months to the rollout.

3. Energy, Climate change and Sustainability

Security of energy supply, energy price inflation and lower resilience to energy shocks are potential challenges to the competitive business environment. High levels of investment in renewable energy, transmission and distribution infrastructure will also be required this decade for Ireland to reach its target of generating 80% of its electricity supply from renewable sources.

To ensure a just transition to climate neutrality in which no sector of society or community is left behind, it is important that the costs of climate action are distributed fairly across the public and private sector, and that the right economic environment and regulatory framework are created to effectively mobilise private investment. The *Climate Action Plan* has outlined significant targets which will require strategies to transition both the indigenous enterprise base and foreign direct investment towards lower emissions and climate resilience to meet our national climate objectives, as set out in legislation. The *White Paper on Enterprise* has outlined the role of enterprise policy in positioning firms to meet the costs of decarbonisation and position them to exploit the opportunities of the low carbon economy. For indigenous enterprise, this may be a greater challenge than for MNC's with greater resources and access to credit.

4. Knowledge, talent and skills

Changing Skills Needs

In recent years, the world of work and the wider economy has faced several step-change type challenges. The economy will continue to experience changes in future due to global trends such as automation, digitisation and the transition towards a green economy.

Automation and digitisation, which were accelerated by the pandemic, present significant risk as well as opportunities for many sectors of the economy. Over recent months it has also become clear that the pace of change will accelerate significantly due to the steep improvement rates of Large Language Models and the dissemination of AI technology. While it is not yet possible to quantify the impact of these developments, previous *Expert Group on Future Skills Needs'* (EGFSN) (2018) research found that 1 in 3 jobs in Ireland are at high risk of being affected by the adoption of digital technologies. More recently, a study by the ESRI estimated that skills-displacing technological change affects 21% of employees in Ireland (McGuinness et al, 2021). Similarly, the transition to a green economy also presents challenges in terms of the impacts on consumer / client preferences and how enterprises transform in response to these changes. The EGFSN 2021 report 'Skills for Zero Carbon – The Demand for Renewable Energy, Residential Retrofit and Electric Vehicle Deployment Skills to 2030', highlights how the transition to a zero-carbon economy will lead to changes in sectors and occupations, the phasing out of existing roles, but also demands for new skills and competencies in the new Zero Carbon economy.

Skills and Firm performance

These emerging global trends, in combination with ongoing pressures such as the recovery from Covid, Brexit, and the fallout from Ukraine, will continue to present challenges for firms and their workers, creating a demand for new competencies, as well as rendering other certain skills and professions obsolete.

Irish firms needs to be responsive and flexible in adapting to these changes, to ensure that they and their workers have the necessary skills to succeed and are able to effectively utilise these skills in driving firm performance and innovation. Optimally using people's skills is associated with higher wages and

job satisfaction for employees, high rates of productivity and innovation within firms, and stronger growth of the economy (OECD, 2022). While Ireland ranks highly overall in terms of innovation across EU countries, ranking 6 out of 27 countries (See Figure 1 below, European Commission, 2022), there is potential for improvement in some areas such as rates of innovation within Irish enterprises relative to other EU countries and the use of digital technologies by firms (CEDEFOP, 2019).

As such, the development of key, necessary skills, effectively used through supportive workplace practices, will be a key factor to allow for greater engagement with the Irish R&I system and ultimately improving innovation within Irish enterprises. The establishment of D/FHERIS presents a significant opportunity in this regard, bringing the HE/FET and Research sector under the aegis of a single Department, from which a more co-ordinated approach to these sectors can be taken to guide policy in these areas in consultation with colleagues across Government such as D/ETE.

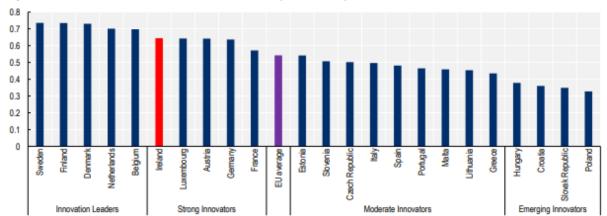


Figure 1: Performance of Ireland's innovation system compared to other EU countries

Lifelong Learning

It is imperative in addressing these challenges to the future economic growth of Ireland that the country has a well-educated and appropriately skilled work force. The 2021 *Economic Recovery Plan* highlighted that skills, talent and workforce development are the most robust, transformative and enduring means to prepare and reorient the economy in terms of ongoing and accelerated changes in our economy and society. Given the rate of change, an agile and responsive tertiary sector, appropriately balanced between Higher Education, FET and apprenticeship, will be required. This should be coupled with greater uptake of flexible forms of learning such as online/blended learning/part-time and in particular greater engagement with lifelong learning.

As part of the Future Jobs Initiative, a lifelong learning target of 18% by 2025 has been set. As of Q4 2019, the lifelong learning rate in Ireland was 14.7%. However, due to the impact of COVID, this rate dropped to 11.6% by Q4 2020, particularly with regard to informal learning, before subsequently recovering to 13.1% by Q4 2021 (SOLAS, 2022). These rates are slightly above the EU average but behind top EU performers such as Sweden and Finland (EuroStat, 2022).

OECD Skills Review

In ensuring Ireland is in the best position possible to provide the necessary skills for the ongoing and future changes in the global environment, the *Economic Recovery Plan* contained a commitment to a comprehensive review of Ireland's *National Skills Strategy*. Following a comprehensive review process, the OECD has recently published its final Report which sets out 24 key recommendations in the areas of:

- Securing a balance in skills through a responsive and diversified supply of skills
- Fostering greater participation in lifelong learning in and outside the workplace

- Leveraging skills to drive innovation and strengthen firm performance
- Strengthening skills governance to build a joined-up skills ecosystem

Recommendations under each of these areas as well as specific actions under these recommendations are set out under Appendix 1. This review, in conjunction with other sectoral strategies such as the Action Plan for Apprenticeship 2021-2025, the Future FET: Transforming Learning and the development of a Unified Tertiary Education Strategy, will be key in ensuring the Irish skills infrastructure is fit for purpose, so that both those currently in the labour market and those seeking employment have the necessary skills.

Conclusion

This paper has outlined that there a number of challenges for Ireland's long term competiveness. It is acknowledged that enterprise policy and the White paper on Enterprise will play a key role in creating conditions to ensure enterprises are competitive and resilient. It has also been observed that there is a roll for skills strategies in ensuring the right skills mix and opportunities exist.

Appendix 1: OECD Skills Review Recommendations

1. Securing a balance in skills through a responsive and diversified supply of skills in Ireland



Opportunity 1: Improving information and guidance for individuals on learning and career pathways

- 1. Strengthen the co ordination of lifelong guidance to support a strategic approach moving forward.
- 2. Consolidate and improve online information on learning opportunities and careers to improve navigability, accessibility and relevance.
- 3. Expand and strengthen guidance services to ensure that everyone can access high-quality guidance over the life course.



Opportunity 2: Strengthening learning and career pathways across the life course

- 4. Promote and strengthen pathways from schools into further education and training and apprenticeships to develop a wellbalanced tertiary system and diversified supply of skills.
- 5. Improve pathways between further education and training and higher education to support the move towards a truly unified tertiary system.



Opportunity 3: Making education and training provision more responsive to changing skills needs

6. Ensure that the provision of further education and training and higher education is aligned with strategic skills needs and responds to changes in demand.

2. Fostering greater participation in lifelong learning in and outside of the workplace in Ireland



Opportunity 1: Strengthening incentives to participate in lifelong learning for individuals

- Incentivise adults to participate in lifelong learning to improve the prominence of lifelong learning in Ireland's society.
- 2. Provide tailored and targeted support to disadvantaged groups to address the specific barriers they face to participating in lifelong learning.



Opportunity 2: Strengthening incentives to participate in lifelong learning for employers

- 3. Establish a clear and robust lifelong learning guidance and support system for employers to efficiently match them with training that meets their needs.
- 4. Reform the National Training Fund to better foster lifelong learning in workplaces.



Opportunity 3: Making lifelong learning more flexible and accessible

- 5. Promote greater flexibility in the lifelong learning offer to help individuals and employers incorporate ongoing learning into daily
- 6. Improve the recognition of non-formal and informal learning for individuals and enterprises to make lifelong learning more accessible to all

3. Leveraging skills to drive innovation and strengthen the performance of firms in Ireland



Opportunity 1: Better utilising Ireland's research talent and public research and innovation system to drive innovation within firms

- Develop skills for innovation across the education system to strengthen Ireland's adaptive capacity and competitiveness.
- 2. Better activate the skills of graduate and doctoral researchers in the workforce to strengthen the innovation capacity of Ireland's economy.



Opportunity 2: Promoting the continuous improvement of leadership and management skills within enterprises

- 3. Extend flexible, subsidised and customisable development opportunities available to Ireland's managers to maximise the accessibility, relevance and value of support.
- 4. Strengthen incentives for management development to raise the motivation of Ireland's managers to upgrade their skills and participate in lifelong learning.



Opportunity 3: Incentivising and enabling enterprises to make better use of the skills of their workers through innovative workplace solutions

- 5. Reinvigorate the strategic focus on workplace innovation in Ireland as a key vehicle to improve firms productivity and performance.
- 6. Foster peer-to-peer learning and communities of practice to promote the diffusion of leading-edge organisational practices between Ireland's multinational enterprises and small and mediumsized enterprises.

Strengthening skills governance to build a joined-up skills ecosystem in Ireland



Opportunity 1: Promoting a whole-of-government and strategic approach to skills policy

- 1. Strengthen the commitment to and efficiency of adopting a whole-of-government approach to skills to help achieve a step change in Ireland's skills system.
- Prepare a follow-up to the National Skills Strategy 2025 to help place skills at the top of Ireland's policy-making agenda and enable effective implementation.



Opportunity 2: Supporting effective engagement with stakeholders throughout the skills policy cycle

- 3. Strengthen the National Skills Council and other stakeholder bodies to enable stakeholders to more effectively shape Ireland's skills policy priorities.
 - 4. Scale up existing good practices and promote a more inclusive, efficient and co ordinated approach to stakeholder engagement in the co-design of education and training.



Opportunity 3: Strengthening the collection, exchange and use of skills information

- 5. Improve the range and granularity of information on current skills needs, strengthen information on training outcomes and enhance skills forecasting.
- Enable more effective exchange and use of existing skills data and promote systematic skills policy evaluation to support evidence-based skills policy making

BREAKOUT SESSION 5:

DELIVERING HOUSING FOR ALL: LONG-TERM TRENDS AND CHALLENGES

CHAIR: Minister for Housing, Local Government and Heritage,

Darragh O'Brien T.D

RAPPORTEUR: Professor Michelle Norris, University College Dublin

POTENTIAL ISSUES/QUESTIONS FOR DISCUSSION

- 1. What practical measures can be introduced to lower the cost of construction and improve residential viability, particularly in urban areas? Is there an appetite for lower spec/grey box type housing?
- 2. Given the scale of the requirement for residential investment, what should the State's priorities be? How can the market's preference for urban rental supply be aligned with Government policy on home ownership?
- 3. What further measures can be taken to increase productivity in the construction industry? What can be done to improve public housing output?
- 4. Overall, what is an appropriate size for the State in the housing system in 2030? How might this effect tenure, spatial planning and the size and scope of delivery agencies such as the Land Development Agency (LDA) and Local Authorities (LAs)?

Introduction and Background

Housing supply has failed to keep-up with demand for most of the last decade. This is true in each of the housing sub-sectors; State subsidised housing (social, affordable and cost rental), the owner-occupier market and the private rental market. The mismatch between demand and supply has resulted in high prices, high rents and reduced access. While not sufficient to remedy all of the various issues pertinent to the housing system (affordability, homelessness etc.) it is clear that a significant and sustained increase in supply is, at least, necessary if Ireland is to meet its social and economic objectives by 2030.

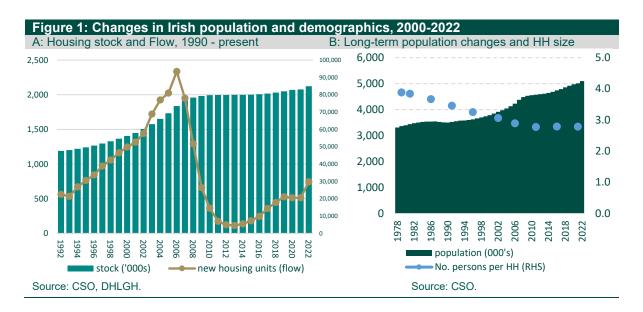
In the long-run, the demand for housing is driven by a number of factors including, inter alia, economic growth, demographics, employment and household size. Since the post-2008 recovery, the confluence of these factors has meant that demand across all sectors of the housing system continues to grow.

To focus on just two of these drivers, the increase in population and decline in average household size is combining to increase demand. The population recorded by Census 2022 was over 5.1 million people. This is the first time the population of Ireland has been above 5 million since 1851 and represents an 8 per cent increase on Census 2016.

Moreover, up until the last decade average household size had been declining since the 1970s.¹⁷ Household size has declined from approximately four persons per household in 1978 to 2.7 persons per household as of 2022. While this is a significant decline, Ireland's rate is still higher than the EU

¹⁷ See: Overview of the housing market: a long-term perspective. Economic Insights - Spring 2022. Available at: https://www.gov.ie/en/publication/daaa2-economic-insights-spring-2022/

average of 2.2 persons per household. There is no reason why Ireland will remain an outlier in this respect meaning that even for a fixed population, more housing will need to be delivered.



On the supply side, it is difficult to underestimate the structural changes that have occurred within the sector since the 2008 crash. The scale of the industry, the funding landscape, the regulatory environment and spatial planning are just some of the ways in which the construction industry has had to adapt.

The Government has responded with a ten-year plan – Housing for All. Under the Plan there has been an unprecedented increase in State funding of new homes. Housing for All commits in excess of €20bn in funding through the Exchequer, the Land Development Agency (LDA) and the Housing Finance Agency (HFA) over a five-year period.

Despite record investment and a high level of new home completions relative to recent years, a number of structural impediments to a well-functioning housing system exist. With the aim of encouraging open debate and with the focus on the medium to long-term sustainability of the housing system, this paper outlines three such challenges; viability, funding, delivery.

Recent Data

Recent data in relation to new supply has been positive with most commentators suggesting that the output in 2023 will be at, or close to, the Housing for All target of 29,000.

Housing Completions

There were 6,700 new dwelling completions in Q1 2023, 19 per cent higher than the same period last year. In the 12 months to end March 2023, there were 30,900 new home completions. This is the first time that completions have exceeded 30,000 in a 12-month period since the series began in 2011.

Commencements

Some 3,250 units commenced nationwide in March, representing a 15.5 per cent increase on March last year and the highest number of commencements in March since the series began in 2014. Overall in Q1, 7,350 new homes commenced construction, the highest level in any first quarter since the series

began. In general, housing commencements in one year have a strong correlation with housing completions a year later.

Planning Permission

The total number of units granted planning permission in 2022 fell by 20.5 per cent to 34,177 units. Although a significant fall, the ending of the Strategic Housing Development (SHD) regime in February 2022 — and the rush of permissions that preceded its closure — distorts the figures. Overall, there is a very high level of permissions within the system with c. 100,000 units nationally having planning permission, but yet to begin construction.

Challenges

Notwithstanding the positive data, it is clear that both structural and cyclical headwinds exist. Moreover, demographic and economic changes mean that the supply target is not fixed. The Department of Housing, in conjunction with the ESRI, have committed to reviewing the Housing Needs Demand Assessment (HNDA) tool, which informs both national and local housing targets. Given the increase in population since Census 2016 – upon which the HNDA was formulated — the target is likely to be increased. Estimates for the actual level of demand vary, but may be c.50,000 units per annum.

Crucially, the revised official target must be seen by all stakeholders — including local authorities — as a 'floor' rather than 'ceiling'. Demographic and societal changes alone, irrespective of the economic cycle, will provide a solid base of demand for years to come.

Achieving the renewed target, and looking towards 2030, at least three structural challenges need to be overcome.

Viability

Lack of viability is generally regarded as the single biggest obstacle to a more robust housing supply response. The issue is complex and multifaceted but generalisations are possible. In general, the higher the density of the proposed development the higher the likelihood that the scheme will be unviable. Accordingly, traditional three and four bed houses — although relatively expensive — are typically viable, whereas high density apartments face significant viability challenges.

Spatial planning and housing typologies

For a decade for more, there has been widespread consensus in favour of achieving higher densities in housing development to, inter alia, support more efficient transport infrastructure and lower emissions. At a national level this policy is expressed via the National Planning Framework (NPF), which specifically favours brownfield development. On a more local level, higher density developments are mandated in urban and suburban settings. While these objectives are laudable they involve tradeoffs.

Higher density development has come to be associated with a single type of development i.e. apartments. For a number of reasons, however, apartments are expensive to build. Accordingly, the 'Build-to-Sell' (BTS) market for apartments has been extremely thin over recent years. At c. €500,000 for an average sized new two-bed apartment, developers – and maybe more importantly, funders — do not believe there is a sufficiently deep market of purchasers in order to commit to development.

In other words, the trade-off involved in having a focus on compact growth is that less housing is built. Or at the very least, less housing for the owner-occupier market is built (see funding section below).

In order to help remedy this dynamic, the Department of Housing, Local Government and Heritage are currently reviewing the Section 28 Guidelines for Planning Authorities on Sustainable and Compact Settlement Guidance (SCSG). The guidelines deal with the typologies, densities and other metrics relevant to the type of housing that can be built and are a central aspect to the viability, or otherwise, of apartment developments.

There are a number of innovative design solutions already available to developers that include own-door, low-rise developments that in some cases match the densities achievable in traditional apartment schemes. The purpose of the renewed guidelines is to specifically allow for more of this type of housing in the planning regulations.

The general public were invited to make written submissions and observations on the proposals. These will be taken into consideration when finalising the draft guidelines, which should be completed in the coming months.

Construction costs

Aside from the additional costs imposed on developers via the type of unit permissible in many locations, the high cost of residential construction further reduces viability and hence output.

The Department of Housing, Planning and Local Government recently published the Residential Construction Cost Study Report. ¹⁸ The aim of the study was to identify cost reduction opportunities in the residential sector. Importantly, the report only examined construction costs i.e. materials and labour, not overall development costs. The authors (Mitchell McDermott) carried out a comparative study across four other European countries — Denmark, Germany, the Netherlands and the UK — looking at costs and differences in design and construction,

The report finds that overall construction costs using Irish specifications are broadly in line with construction costs in the other four countries. However, the cost of building the same scheme house in the UK was approximately 15 per cent cheaper. Moreover, lower construction costs were evident in Denmark, Germany and the Netherlands for the actual apartment and student accommodation buildings being constructed in those countries. In other words, the type of unit being built in the comparator countries is cheaper to build than the type of unit being built in Ireland.

In Ireland, we appear to be delivering a higher quality, high-finish, labour-intensive, bespoke product. There are obvious costs associated with this. There is also a trade-off involved in delivering relatively high-spec units. Higher costs reduce viability with a knock-on impact on supply.

The report recommended further work to be carried out to include a review of the standardisation of housing design and construction, a review of the technical specifications of key building inputs such as external walls, windows and building services, and the development of a standardised design for student accommodation.

Compensatory measures

In response to the viability challenge — and to provide short-term relief before the above policy changes can take effect — the Government has introduced a number of temporary compensatory measures.

The Croí Cónaithe (Cities) Scheme supports BTS apartment delivery in Dublin, Cork, Limerick, Galway and Waterford. The scheme aims to bridge the current "viability gap" where the cost of building apartments in these cities is higher than the market sale price. Under the scheme the State will provide

¹⁸ https://www.gov.ie/en/publication/2bf87-residential-construction-cost-study-report/

a subsidy of up to €144,000 per unit. The intention is to make 5,000 apartments available for purchase to owner occupiers.

Project Tosaigh aims to unlock sites in private ownership where planning permission exists, but has not yet progressed due to a lack of viability. Administered by the LDA, the Agency is targeting the delivery of 5,000 new homes by 2026 to be used for cost rental and affordable purchase. The Government has also recently announced a temporary waiver on development levies. The aim of the waiver is to reduce the overall cost to the developer in order to make more projects viable.

Funding

Transformed financing landscape

The post-crisis construction industry differs greatly from the industry that existed during the 2000s. One key change is the transformed funding landscape. Prior to 2008, the typical developer in Ireland was either 100 per cent debt funded by an Irish bank, or had enough equity (retained profit etc.) to part-fund a development with the remainder being funded by a domestic bank.

Today, developers are unlikely to be able to attract debt funding beyond, it has been suggested, c. 65 per cent of the development cost of a project. The remainder is funded via non-bank lending, private equity, private finance, or some other form of institutional investment. The shift away from the bank-debt model has had profound implications for the industry.

In effect, many developers now act as agents for international capital and do not have the independence they once had. They convert capital into either long-term yield or high margin return. Moreover, due to the cost and risk associated with apartment development, developers primarily build houses for the owner-occupier market and apartments for the rental sector.

Apartment development involves an entirely separate set of characteristics than scheme housing. These include the type of firm that can deliver it, financing and tenure. The kind of speculative development for the BTS and Buy-to-Let (BTL) market that was common pre-2008 is gone. Developers are typically not able to secure funding for such schemes. Instead, they effectively build to order via so-called forward-commit transactions for the Build-to-Rent (BTR) sector. The economics of the BTR sector are different from the traditional BTS/BTL market. Investors in such developments seek annual yield over a long period, usually around 25 years, and can therefore pay a premium on the unit price which makes them viable.

This dynamic means that in the absence of institutional investors it is likely that very few apartments would have been built in recent years. However, such investment is highly sensitive to interest rate increases, the scale of which over the last 12 months has resulted in many BTR sites now facing viability challenges.

State Funding

The State has stepped in to help developers secure financing and now plays a greater role in the new funding environment. State bodies including Home Building Finance Ireland (HBFI), the National Asset Management Agency (NAMA), the Irish Strategic Investment Fund (ISIF), and the LDA are all active in the provision of various forms of development financing.

HBFI provides funding for commercially viable residential developments. It offers a number of products including for apartment developments and social and affordable housing schemes. NAMA does not

build houses itself, but works with its existing debtors and receivers to agree development plans, secure or alter planning permission and fund the debtor's delivery of units.

In 2022, 600 new homes were delivered on NAMA-secured sites and a further 400 new homes are expected to be delivered in 2023. In total, NAMA has funded or facilitated the delivery of 28,000 new homes nationwide since 2014.

ISIF plays a key role in the development of new housing via commercial partnerships and through funding enabling infrastructure. To date, ISIF has committed over €930 million to housing-related investments and is currently funding the delivery of 15,000 new homes across more than 100 sites nationwide.

The LDA was initially established to support the delivery of new homes on State lands. It now has a much wider remit and will deliver social and affordable homes on State and non-state lands. The LDA commenced operations with access to €3.5 billion of capital, comprised of an initial €1.25 billion in equity funding from ISIF, and the authority to borrow up to €1.25 billion on the private market. Housing for All also provides for a further increase of €1 billion borrowing capacity for the LDA in the coming years. The LDA currently has a portfolio of 10 sites, with the capacity to delivery c. 6,000 homes.

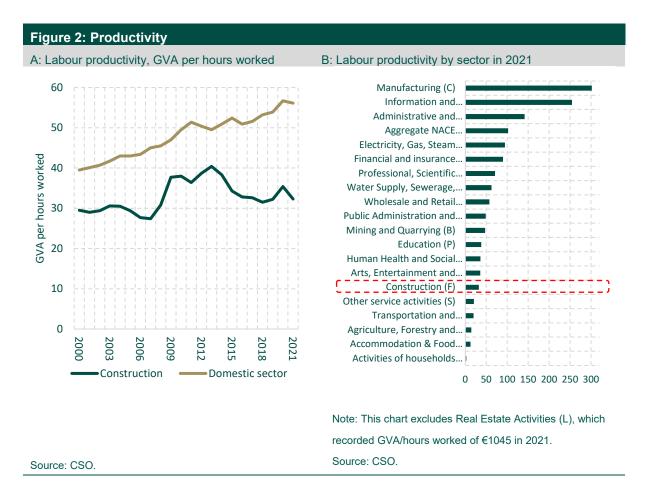
The combined investment by these State agencies is in addition to direct capital investment by the Department of Housing, the local authorities and Approved Housing Bodies (AHBs). Budget 2023 provided for total Exchequer funding of €4 billion to deliver housing programmes, including €2.6 billion in capital. The capital provision will be supplemented by €1.9 billion from LDA investment and Housing Finance Agency (HFA) lending, resulting in an overall capital provision of €4.5bn for 2023.

The Department of Finance estimates that annual development financing of €13.5 billion is required to produce 33,000 units. Should the national target increase, as expected, that funding requirement will grow. In other words, notwithstanding the significant increase in public funding, the scale of the housing need means that the State is likely to only ever be a minority provider of development capital. Accordingly, the country needs the private market to invest tens of billions of euro between now and 2030. Given the more prudent lending practices of the domestic banking sector, the majority of this capital may be foreign, selective and mobile.

Delivery

Recognising the level of investment needed, the key to increased output will be the ability to apply those resources in an efficient and cost-effective way. As figure 2 shows, the construction industry is a particularly unproductive sector. This is true both in Ireland and internationally. There are numerous factors causing such low productivity, including the labour intensive nature of much of the work; low take-up of new technologies; lack of scale; and the cyclical nature of the sector.¹⁹

¹⁹ See KPMG Economic analysis of productivity in the Irish construction sector. Available at: https://assets.gov.ie/75034/5ea76039-b46b-434d-9b66-ab2936df38f7.pdf



For example, 97 per cent of construction firms employ less than 10 people. Such a very high level of fragmentation makes it difficult to tap into the productivity gains that arise from economies of scale.

The relatively low output of some of the urban local authorities is an additional concern. Some local authorities have consistently failed to meet targets for new-build housing, relying on leasing, purchases and the Housing Assistance Payment (HAP) to meet people's need. While necessary, such measures do not add to the stock of housing and therefore can only be short-term solutions.

In order to produce a minimum of 300,000 units between now and 2030 and, importantly, to continue to produce high levels of output beyond then, both the public and private sectors need to improve their efficiency of delivery.

The Government has again recognised this issue and under Housing for All there are initiatives around Modern Methods of Construction, use of Building Information Modelling (BIM), upskilling etc. More indirectly, the State is helping firms grow by effectively underwriting large proportions of many new developments via Part V and turnkey acquisitions, as well as providing a multi-annual, multibillion euro pipeline of housing demand for the rest of the decade.

However, the type of development that national policy now favours i.e. higher density, compact growth, means that further progress in these areas is critical. There are only 10-12 building firms capable of delivering such housing at scale. Similarly, the urban LAs have struggled to deliver citing lack of capacity and expertise, as well as viability. Looking towards 2030, as the forces of demographic change, urbanisation and climate mitigation take hold, Ireland needs a scalable, efficient and cost-effective construction industry. The onus is on both the private and public sectors to deliver.

Table 1: Social housing delivery

	2016	2017	2018	2019	2020	2021	2022
Build:							
Target	2,260	3,200	4,969	6,545	7,736	9,500	9,000
Output	2,977	4,054	4,794	6,074	5,070	5,196	7,433
	+717	+854	-175	-471	-2,666	-4,304	-1,567
Acquisition:							
Target	1,755	1,250	900	1,325	800	800	200
Output	1,944	2,214	2,610	2,769	1,314	1,262	960
	+189	+964	+1,710	+1,444	+514	+462	+760
Lease:							
Target	225	600	2,000	2,130	2,631	2,450	2,620
Output	792	827	1,001	1,161	1,440	2,711	1,870
	+567	+227	-999	-969	-1,191	+261	-750
Total:							
Target	4,240	5,050	7,869	10,000	11,167	12,750	11,820
Output	5,713	7,095	8,405	10,004	7,824	9,169	10,263
	+1,473	+2,045	+536	+4	-3,343	-3,581	-1.557

Note: These figures exclude rental supports such as RAS and HAP

Source: DHLGH.

Conclusion

The Irish housing market has been in a state of disequilibrium for almost a decade. Even allowing for the normal vicissitudes of the market, as well as the economic cycle, it is likely that fundamental factors such as demographics and demand for various forms of subsidised housing will support the need for a high level of supply of new homes for many years into the future.

Long-term success involves — at the very least — overcoming the three strategic challenges outlined above. The scale of the challenge means that neither the State nor the market can solve these issues alone. A collaborative approach that maximises the strengths of all stakeholders — industry, local authorities, central government and the not-for-profit sector is the only way to achieve a successful housing system by 2030 and beyond.

Appendix: Government's Policy Responses (selection)

The First Home Scheme.

- Launched last July, this Scheme supports first-time buyers in purchasing new houses and apartments in the private market through the use of an equity share model.
- The Scheme is targeted at first-time buyers who are seeking to buy a new home, but who cannot quite secure the full mortgage amount.

Affordable Housing Act 2021

- The Affordable Housing Act 2021 equips Local Authorities to return to delivering Affordable Housing in response to local needs and market conditions.
- The Government's Affordable Housing Fund provides the Local Authority with a subsidy in the range of €50,000 to €75,000 depending on location and need.

Cost Rental

- Cost Rental is a new tenure type in Ireland, where rents are based on the cost of provision, i.e. constructing/acquiring, management, and maintenance of homes.
- Cost Rental designation of a home can be sought from the Minister by the owner. So far,
 Approved Housing Bodies (AHBs) and the Land Development Agency (LDA) have done so.

Project Tosaigh

- The Land Development Agency's Project Tosaigh aims to unlock land in private ownership where planning permission exists but has not progressed due to financing and other constraints.
- The LDA aims to forward purchase such sites with larger schemes primarily for its own cost rental delivery programme.

Croí Cónaithe Cities

- Croí Cónaithe Cities is directed towards addressing the viability/supply of apartments for owner occupation in our 5 cities
- It aims to bridge the viability gap between development costs and market prices

Croí Cónaithe Towns

• The Croí Cónaithe Towns Fund provides for grants for refurbishment of vacant properties of up to €50,000 or €70,000 if the property is derelict.

Help to Buy scheme

- The Help to Buy scheme is administered by Revenue to assist first-time purchasers with deposits to buy or build a new home.
- It is based on a refund of tax paid over previous 4 years subject to an upper limit of the lesser of €30,000 or 10 per cent of purchase price.

BREAKOUT SESSION 6

MOVING TO A SUSTAINABLE FOOD SYSTEM

CHAIR: Minister of State at the Department of Agriculture, Food and

the Marine, Martin Heydon T.D.

RAPPORTEUR: Professor Michael Wallace, University College Dublin

POTENTIAL ISSUES/QUESTIONS FOR DISCUSSION

- 1. Food Vision 2030 sets out a vision for Ireland to become a World leader in Sustainable Food Systems over the next decade. A sustainable food system is described as one which achieves a balance between the three dimensions of sustainability economic, environmental and social sustainability. How can the three pillars of sustainability be balanced to achieve this goal?
- 2. Enteric fermentation from livestock accounted for 61% of agriculture's GHG emissions in 2021. Ag Climatise states that "any increase in biogenic methane emissions from continually increasing livestock numbers will put the achievement of [climate targets] in doubt". However, latest figures suggest that livestock numbers continue to increase. What actions can be implemented within the cattle herd to allow us to meet our climate targets?
- 3. With leadership from stakeholders, the sector can take the steps necessary to improve its environmental performance and protect and enhance its reputation as a sustainable producer of quality food. It will also mean that Ireland can take a leading position internationally as an advocate of Sustainable Food Systems. How can consensus on a path forward be reached?

A sustainable food system is described as one which achieves a balance between the three dimensions of sustainability – economic, environmental and social sustainability. Within environmental sustainability, this paper focuses on Greenhouse Gas Emissions. It should be borne in mind that there are other environmental sustainability criteria such as water quality and biodiversity (amongst others), and that economic and social sustainability have a large number of sub-elements which are each quite detailed in themselves.

1. Context: Agriculture's Impact on Greenhouse Gas Emissions

The earth's global surface temperature is rising at an increasing rate. Global surface temperature in the period 2011 - 2020 was 1.09°c higher than it was in the period 1850 - 1900²⁰. Since 1970, global surface temperature has increased faster than in any other 50-year period over the last 2,000 years. Human activities have unequivocally caused climate change. Over more recent decades, emissions have increased rapidly due to fossil fuel combustion; industrial processes; land use, land use-change and forestry; and fluorinated gases. The consequences of climate change have begun to show across the globe in the form of food and water scarcity; severe fires; rising sea levels; intense weather events and declining biodiversity.

²⁰ Intergovernmental Panel on Climate Change (2023) "AR6 Synthesis Report: Climate Change 2023": https://www.ipcc.ch/report/sixth-assessment-report-cycle/

The agricultural sector is amongst the largest contributor to global greenhouse gas (GHG) emissions. As per *Figure 1* below, agriculture accounted for an average of 12% of GHG emissions across the European Union's (EU) 27 Member States²¹. Due to Ireland's reliance on the agricultural sector (as a result of low levels of industrialisation coupled with other historic, geological, cultural and economic factors), agriculture's contribution to GHG emissions is much higher in Ireland in comparison to our EU counterparts. In 2021, agriculture accounted for 36% of Ireland's total GHG emissions.

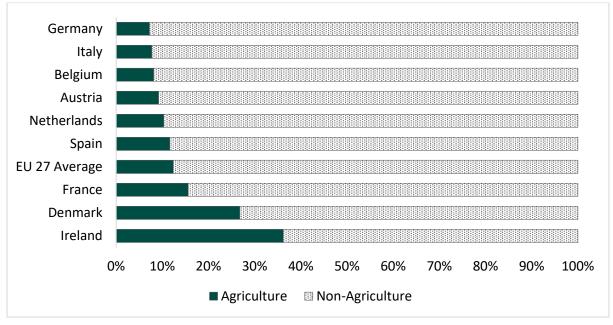


Figure 1 Agriculture % of Total GHG Emissions 2021

Source: Eurostat, 2023

The two main GHGs associated with production from the agriculture sector are Methane (CH_4) and Nitrous Oxide (N_2O).

- 1. Methane (CH₄): Methane is a natural bi-product of the ruminant digestive process (i.e. cattle, sheep, goat and deer). Further methane is also emitted with the storage of manure and slurry. While methane only has a lifespan of 12 years, it has 28 times more global warming potential than carbon dioxide over a 100-year period, if it continued to increase.
- 2. Nitrous Oxide (N₂O): Nitrous Oxide is produced through a microbial process in soils which uses Nitrogen deposited on land by farmers and animals, through the spreading of synthetic fertilisers; excretion of animals during grazing; and the spreading of slurry. Nitrous Oxide has 256 more global warming potential than carbon dioxide over a 100 year period and has a lifespan of 100 years.

Between 1990 and 2021, total emissions from agriculture in Ireland increased by 15%, from 20.5 million tonnes in 1990 to 23.6 million tonnes in 2021²². Emissions increased over this period across all emission sources, except for emissions from fuel combustion in agriculture/forestry/fishing activities which reduced by 17% over this period.

https://ec.europa.eu/eurostat/databrowser/view/TAI08 custom 6180256/default/table?lang=en

²¹ Eurostat (2023) Greenhouse gas emissions from agriculture:

²² Environmental Protection Agency (2023) Agriculture: https://www.epa.ie/our-services/monitoring-assessment/climate-change/ghg/agriculture/

Figure 2 Ireland Emissions from Agriculture 1990 – 2021

Source: Environmental Protection Agency, 2023

The largest source of GHG emissions in the agricultural sector is enteric fermentation of livestock (61% of total emissions in 2021). This refers to emissions from the digestive process of ruminant animals²³. As per Figure 3 below, since the build-up in cattle numbers in anticipation of Ireland's membership of the EU in 1973 and the Common Agricultural Policy (CAP), cattle numbers have averaged around 7 million (+/- 0.5m)²⁴. At 7.4 million in 2022, cattle numbers are close to their all-time high.

As per *Figure* 2, there was a reduction in emissions from 1998 to 2011. The largest contributor to this change, in absolute terms, was a reduction in enteric fermentation from livestock of 2.2 million tonnes. This may be reflective of the decrease in cattle numbers around 2010s due to the recession. However, this reduction has since been counteracted by an increase in total cattle numbers since 2011 that has been predominantly driven by an increase in dairy cow numbers which have increased by 40% between 2013 and 2022. This is reflective of the expiration of the milk quota system in April 2015, which resulted in expansion and growth of the dairy sector²⁵. The dairy herd now represents 22% of the cattle herd, in comparison to 17% in 2013. As highlighted by Teagasc (2022), agriculture GHG emissions per hectare are significantly higher for dairy systems in comparison to other grassland systems, not only due to higher emissions per animal, but also due to the intensive nature of production (i.e. higher stocking rates, greater use of fertiliser and more energy intensive diets)²⁶. As a result of growing livestock numbers, there has been an increase in emissions from enteric fermentation over the last decade. However, there may be some indication that cattle numbers are beginning to stabilise, as reflected by an increase in cattle numbers of 0.5% in 2022, in comparison to an average increase of 1.3% per annum between 2012 and 2021.

²³ While sheep are a ruminant animal, they emit significantly less than beef or dairy animals. Teagasc studies suggest the following estimates of methane emissions per day: 500kg beef animal (230g); 550kg dairy cow (320-330g); ewe lamb (8.62g); and mature ewe (10-35g).

²⁴ Central Statistics Office (2023) Crops and Livestock: https://www.cso.ie/en/releasesandpublications/ep/p-svi/statisticalyearbookofireland2021part3/agri/cropsandlivestock/

syi/statisticalyearbookofireland2021part3/agri/cropsandlivestock/

²⁵ Teagasc (2015) "The End of the Quota Era: A History of the Dairy Sector and Its Future Prospect": https://www.teagasc.ie/media/website/publications/2015/End of the Quota Era final.pdf

²⁶ Teagasc (2022) "Teagasc National Farm Survey 2021 Sustainability Report: https://www.teagasc.ie/media/website/publications/2022/2021-Sustainability-Report.pdf

Figure 3 Cattle Numbers Ireland 1960 - 2022

Source: Central Statistics Office, 2023

2. Global Ambition

In order to tackle climate change and limit the negative consequences of climate change on ecosystems, economies and society, international cooperation and action is required. In November 2016, the Paris Agreement legally entered into force. The Paris Agreement is a legally binding international treaty that guides all nations in substantially reducing GHG emissions to limit the global temperature increase to 2°c above pre-industrial levels (and to pursue efforts to limit temperature increase above 1.5°c)²⁷. To date, 193 states have joined the Paris Agreement in addition to the European Union.

3. Europe's Ambition

The European Green Deal represents and frames the EU's response to Climate Change. In order to align EU Member States with the goals set out in the Paris Agreement, the Deal commits European Member States to delivering net-zero GHG emissions by 2050 and reducing GHG emissions by at least 55% by 2030²⁸. A key element of the Deal is to deliver on GHG emission reductions while also focusing on the decoupling of economic growth and resource use.

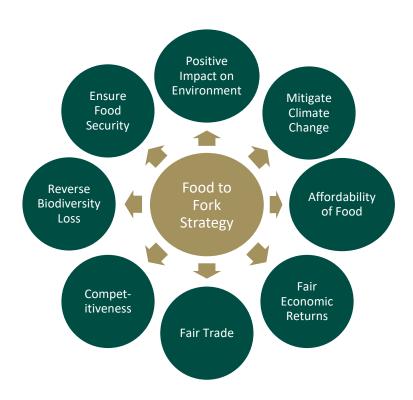
Farm to Fork Strategy

For Agriculture, the Farm to Fork Strategy is at the heart of the European Green Deal. The Strategy outlines Europe's roadmap for a sustainable food system which delivers on the climate objectives set out in the European Green Deal, while also improving farm incomes and reinforcing the competitiveness of the agricultural sector²⁹. The strategy focuses on actions such as carbon sequestration; more renewable energy (anaerobic digesters); reduced use of pesticides; reduced nutrient loss; better animal welfare; protection for plants and growth in organic farming.

²⁷ Paris Agreement: https://unfccc.int/sites/default/files/english paris agreement.pdf

²⁸ European Green Deal: https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal_en

²⁹ Farm to Fork Strategy: https://food.ec.europa.eu/system/files/2020-05/f2f action-plan 2020 strategy-info en.pdf



While European food may already be considered as safe, nutritious, high quality and plentiful, the Food to Fork Strategy aims to go a step further by making European Food a global standard for sustainability. Becoming a global standard for sustainability would come with immense economic opportunity for European farmers. Modern societies are becoming increasingly aware of environmental, health, social and ethical issues which is driving a significant change in the food market³⁰. This shift in society presents an opportunity for EU farmers to be the 'first mover' in the transition to a sustainable food system, before our competitors outside of the EU manage to do so.

Europe's ability to become a global standard for sustainable food will be dependent on the human and financial investment that is exercised in each Member State. At a Member State level, recognition and acceptance of this opportunity, as well as leadership and coordination will be required across a broad range of stakeholder including consumers, farmers, Government departments, processors and retailers. The requirements for different stakeholders will be guided through each Member State's own plan and vision for the agricultural sector, which will be backed up by investment which will be guided by the new Common Agricultural Policy Strategic Plan (CSP) 2023 – 2027.

4. Ireland's Ambition

In line with the ambition of the European Green Deal, the Programme for Government commits the State to achieving a 51% reduction in Ireland's overall GHG emissions. This is a legally binding objective set out in the Climate Action and Low Carbon Development (Amendment) Act 2021³¹. Since 2019, three separate, but complementary, national plans and visions have been developed which will guide the agriculture sector in delivering on a sufficient emissions reduction in order to aid Ireland in meeting its

³⁰ European Food Safety Authority (2019) "Food Safety in the EU: Special Eurobarometer Wave EB91.3": https://www.efsa.europa.eu/sites/default/files/corporate_publications/files/Eurobarometer2019_Food-safety-in-the-EU_Full-report.pdf

³¹ Climate Action and Low Carbon Development (Amendment) Act: https://www.irishstatutebook.ie/eli/2021/act/32/section/15/enacted/en/html

national and EU climate targets. In line with the ambition of the European Green Deal, Ireland also has the ambition to become a global leader in sustainable food systems.

Climate Action Plan

The Climate Action Plan 2023, which is a second annual update to Ireland's Climate Action Plan, is the first to follow the Climate Action and Low Carbon Development (Amendment) Act 2021 and the introduction of carbon budgets and sectoral emission ceilings³². The aim of the Climate Action Plan is to act as a roadmap for all sectors to deliver on Ireland's climate ambition.

In order to achieve a 51% reduction in Ireland's GHG emissions, the Climate Action Plan targets a 25% reduction in emissions from the Agriculture sector by 2030 (in comparison to 2018).³³ From 2021 – 2025, the first carbon budget allocates 106 MtCO₂eq., of which 22% has already been used in 2021. As a result, the sector will have to reduce emissions by approximately 4% per annum for 2022, 2023, 2024 and 2025. Measures outlined in the Climate Action Plan include reducing nitrogen and methane emissions; increasing carbon capture; enhancing biodiversity; providing diversification options for livestock farmers; enhancing adaption and supporting the development of new research.

A recent report by the EPA showed that Ireland's land use, land use change and forestry sector is currently a carbon source rather than a carbon $sink^{34}$. Sectoral emission ceilings for the sector are to be determined later this year. Nonetheless, the Climate Action Plan highlights the significant role that Forestry will play in delivering on our climate targets. In recognition of the importance of forestry, the new Forestry Programme 2023 – 2027 provides increased premiums of between 46% and 66% for planting trees 35 .

Ag Climatise

Following the targets set out in the first Climate Action Plan (2019), the Department of Agriculture, Food and Marine (DAFM) developed Ag Climatise, which lays out a roadmap for the agricultural sector to achieve our national and international climate ambitions³⁶. The roadmap sets out 29 actions that will be required in order to stabilise methane emissions and facilitate a reduction in nitrous oxide emissions. Actions span over a number of themes including, but not limited to, fertiliser use; animal breeding; grassland management; organic farming; bioeconomy; forestry and energy systems.

The report also highlights that a continuous increase in livestock numbers will put the achievement of climate targets in doubt.

Food Vision 2030

Food Vision 2030 goes a step further than the Climate Action Plan and Ag Climatise, by sharing a vision of an agri-food sector which not only has a positive/neutral impact on our natural environment, but is also profitable throughout and has an all-encompassing benefit for society. Mirroring the ambition of Europe's Food to Fork Strategy, Food Vision 2030 sets out Ireland's own vision and ambition to become a world leader in Sustainable Food systems by 2030.

A sustainable food system is described as one which achieves a balance between the three dimensions of sustainability – economic, environmental and social sustainability. The vision establishes four high level missions in order to strike this balance, as laid out below. Each mission is underpinned by a

³² Climate Action Plan 2023: https://www.gov.ie/en/publication/7bd8c-climate-action-plan-2023/

³³ As a result of the choice to reduce Agricultural emissions by 25%, other sectors will have to reduce emissions by up to 75% e.g. Electricity (75%); Transport (50%); Industry (35%); Bulit Environment (40-45%); and Other (50%).

³⁴ Environmental Protection Agency (2021) Ireland's National Inventory Report: https://www.epa.ie/publications/monitoring--assessment/climate-change/air-emissions/Ireland_NIR-2021_cover.pdf

³⁵ DAFM (2022) "€1.3 billion announced for new Forestry Supports": https://www.gov.ie/en/press-release/2e80d-13-billion-announced-for-new-forestry-supports/

³⁶ Ag Climatise – A Roadmap towards Climate Neutrality: https://www.gov.ie/en/publication/07fbe-ag-climatise-a-roadmap-towards-climate-neutrality/

number of key indicators, representing the immense effort which will be required by all those involved in the agri-food sector³⁷.

Mission 1: A Climate Smart, Environmentally Sustainable Agri-Food Sector

- Biogenic methane ↓ 10%;
- Emissions associated with fertiliser \(\psi \)
 50%:
- Nutrient loss to water ↓ 50%;
- Farm area prioritised for biodiversity 10%;
- Ammonia emissions ↓ 5%;
- Afforestation 8,000 ha per annum;
- Area farmed organically 7.5%;
- Achieve 30% of marine protected areas;
- Halve the level of food waste per person by 2030; and
- Achieve high participation rate in Origin Green Programme.

Mission 3: Food which is safe, nutritious and appealing, trusted and valued at home and abroad

- A coherent national and international food, health and nutrition initiatives;
- Food safety, animal health and welfare ↑;
- Value and value added in the agri-food sector ↑; and
- Increase value of exports to €21 billion by 2030.

Mission 2: Viable and resilient primary producers with enhanced well-being

- Family Farm Income ↑;
- Share of viable and sustainable farms
 ↑:
- Economic returns to land ↑;
- Profitability per hectare ↑;
- Primary output value ↑;
- Diversification across sectors ↑;
- Economic performance of the Seafood Sector - ↑;
- Share of younger and trained farmers and fishers - ↑;
- Number of new entrants ↑;
- Risk of social isolation 1;
- Record on health and safety ↑; and
- Enhanced market transparency.

Mission 4: An Innovative, competitive and resilient agri-food sector, driven by technology and talent

- A more output-focused collaborative innovation system;
- Level of private R&D to reach 1% of turnover;
- Availability of public policy supports, including R&D, access to finance and on competitiveness issues specific to the sector;
- Development and implementation of a strategy for the sector on education, skills and talent retention;
- Promotion of food and nutrition security:
- Deliver on Ireland's ambition to achieve the UN aid target of 0.7% of GNI by 2030; and
- Development of a recognised Sustainable Food System measurement or index.

As stated in the report, leadership from stakeholders is necessary for the sector to improve its environmental performance and protect and enhance our reputation as a sustainable producer of quality

³⁷ The Food Vision Report highlights that this target will need to adjust in line with emerging national and international targets for the sector and in line with the development of scientific solutions.

food. As part of the Food Vision process, continued stakeholder engagement has been facilitated through the establishment of a number of working groups that advance important actions within the Vision e.g. Food Vision Diary Group; Beef and Sheep Group; Environmental Sub-Group; and Tillage Group.

Amongst the most profound and challenging indicator presented by the Report is the target to achieve a 10% reduction in biogenic methane, particularly considering that data up to 2022 suggests that livestock numbers are continuing to increase. Food Vision 2030 echoes the concerns of Ag Climatise by highlighting that substantial increases in dairy cow numbers is posing challenges to some environmental indicators. A voluntary diversification/extensification scheme has been proposed which is the first scheme of this type that would support a reduction in cattle numbers. From a policy perspective, it is important that schemes help reduce absolute emissions while weighing other parts of environmental, economic and social sustainability and do not underpin higher livestock numbers.

Ireland's influence on other countries sustainability including emissions is much less than on our own. However the potential global impact if Ireland can demonstrate substantial improvements in sustainability could be immense. With the lowest carbon footprint of milk in the EU (joint with Austria) and the fifth lowest carbon footprint of beef, ³⁸ Ireland's achievement of the necessary absolute reductions in agricultural emissions should provide a template for other countries worldwide to reduce their agricultural emissions. Productivity and efficiency improvements will have a large role to play in facilitating a move to a sustainable food system. However, in delivering efficiency improvements in the agricultural sector, caution will have to be exercised to ensure that a rebound effect does not arise, whereby higher production is incentivised by efficiency measures.

5. Common Agricultural Policy

In the first instance, investment and action to promote environmental, social and economic sustainability will be guided by the new Common Agricultural Policy Strategic Plan (CSP) 2023-2027³⁹. Ireland's new CSP reinforces the objectives of the European Green Deal by continuing to move away from a system of direct payments to those who own farm land, to a more efficient and effective system whereby supports are directed towards the farmers that need it most and who deliver on the green ambition. The plan will deliver €9.8bn in funding to support the production of safe and sustainable food.

The increasing pressure from national and EU obligations to become more environmentally sustainable is reflected in the increased environmental focus in the new CSP. The environmental ambition of the CSP is captured as part of the new 'Green Architecture' of the CSP, which has three core elements:

- a. Conditionality: Conditionality refers to the requirements that farmers must adhere to in order to receive CAP payments. The Minister for Agriculture, Food and Marine has recently announced enhanced Conditionality requirements that will improve nutrient use and efficiency, reduce chemical nitrogen use, improve water and air quality, improve biodiversity levels and to safe food production and upholding strong animal welfare principles⁴⁰.
- b. Pillar 1 Eco Schemes: A new voluntary annual agri-environmental scheme supports climate and environmental improvements across all farmed lands. To qualify for payment, farmers must undertake at least two (out of eight) practices e.g. limiting chemical nitrogen use, planting of native trees and/or Hedgegrows etc.
- c. Pillar 2 Climate and environment-related interventions: Pillar 2 Schemes include environmentally focused interventions that aim to deliver long-term environmental improvement. The most substantial of these schemes is the new €1.5 billion Agri-Climate Rural

https://www.teagasc.ie/media/website/publications/2019/TResearch_Winter2019_AgriAndClimateChange_Web.pdf

https://www.gov.ie/pdf/?file=https://assets.gov.ie/243377/92dce3ee-f19e-4645-b58a-9ece0287e41b.pdf#page=null

³⁸ Teagasc (2019) "Agriculture and Climate Change":

³⁹ Common Agricultural Policy Strategic Plan 2023 – 2027:

⁴⁰ DAFM (2023): Conditionality: https://www.gov.ie/en/collection/e11a2-conditionality/

Environment Scheme (ACRES). ACRES goes beyond Conditionality and Eco Scheme requirements by offering measures that are designed to improve habitats for a range of species, while also targeting water quality and climate mitigation and adaption.

Other schemes included in Pillar 2 interventions, which also aim to support sustainability of the sector include the Suckler Carbon Efficiency Programme; the Organic Farming Scheme; Straw Incorporation Measure and the Knowledge Transfer Programme.

In addition to funding provided through the CAP Strategic Plan, DAFM will also continue to provide funding for schemes that are aligned with the ambition of the Food Vision Strategy. In 2023, examples include funding provided to encourage genotyping of the national herd; the planting of multi-species swards; the planting of red clover; and the spreading of lime. A previous DAFM funded scheme which has proven to be a success is the €3m 'GREENBREED' project which recently led to the discovery that there can be differences in emissions of up to 11% in animals due to genetic differences⁴¹. The recent launch of a bovine genotyping programme will compliment this finding by providing farmers and policy makers with the information needed to focus breeding strategies on animals with low-methane traits.

6. Summary

The agricultural sector in Ireland is faced with the challenging and ambitious target to deliver a 25% reduction in GHG emissions by 2030. Amongst other things, delivery of this reduction will be dependent on our ability to reduce reliance on chemical fertilisers, reduce biogenic methane emissions from the national herd; reduce nutrient loss to waterways; and increase afforestation and the area of organic farming.

As laid out in Europe's Farm to Fork Strategy and Ireland's own Food Vision 2030 Report, achievement of our climate targets does not imply that we cannot simultaneously achieve increased economic viability and competitiveness for family farms. The agri-food sector is a large source of Ireland's GHG emissions, however, we are a relatively carbon-efficient producer in comparison to other countries due to our temperate grass-based system. This gives Ireland an advantageous starting point in becoming a global leader in Sustainable Food Systems by 2030.

Nonetheless, while the plans and targets may be in place to deliver on this vision, recognition and agreement in relation to the actions required to enact this vision will require continuous and ongoing engagement (as already underway) with a broad range of stakeholders who may have somewhat divergent views and interests.

emissions": https://www.gov.ie/en/press-release/6b09c-ministers-mcconalogue-and-heydon-announce-scientific-breakthrough-in-reducing-methane-emissions/

⁴¹ DAFM (2023) "Ministers McConalogue and Heydon announce scientific breakthrough in reducing methane

BREAKOUT SESSION 7

LEVERAGING DIGITAL AND SKILLS IN THE FUTURE OF WORK AND EMPLOYMENT SERVICE DELIVERY

CHAIR: Minister for Social Protection and Minister for Rural and

Community Development, Heather Humphreys, T.D.

RAPPORTEUR: Professor Philip O'Connell, University College Dublin

POTENTIAL ISSUES/QUESTIONS FOR DISCUSSION

- 1) How are digital, automation, and artificial intelligence technologies going to impact on the labour market as we move towards 2030? Could these evolving technologies have an impact on current trends in the sectoral and occupational mix of the Irish economy? Can these technologies present opportunities to promote better diversity, equity, and inclusion in the labour market?
- 2) Are the current suite of active labour market policies well placed to facilitate the potential labour market flux that could result from these technological developments? Do they need to be adapted to be in a better position to manage the potential flux?
- 3) How can the Government best develop digital technologies to enhance the effectiveness of the public employment service engagement with jobseekers, employers and other stakeholders? What are the potential challenges to achieve this?

INTRODUCTION

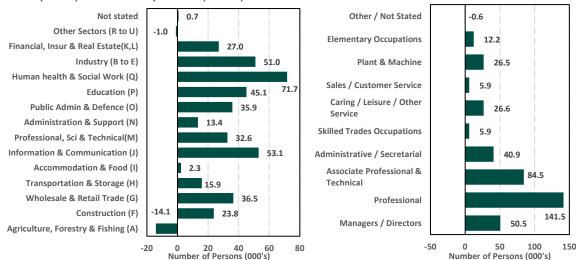
The impact of digitalisation, automation, and artificial intelligence on the workforce has been an ongoing area of policy interest internationally for a number of years. Recent developments in artificial intelligence software have reinvigorated the discussion and raised the question of whether recent trends in the sectoral and occupational mix of labour demand will hold into the medium to long term. The potential flux created by these changes will present policy challenges in terms of ensuring the workforce has the appropriate skillset required in the evolving economy and supporting those who may see their existing jobs impacted as technologies are adopted. Digital advancements also create opportunities for a range of public services, including employment services, to enhance the effectiveness of interactions with jobseekers, employers and other stakeholders. These technologies may also broaden employment opportunities for groups who face barriers to on-site employment, such as people with disabilities, people with caring responsibilities or people living in rural areas.

A. Shifts in Occupations and Skills Demands

Changes in the sectoral and occupational mix of the Irish economy are evident in the data over the last number of years. While these shifts are not exclusively driven by technological changes, these changes are likely to have had a significant impact. However, more recent analysis suggests that the next generation of technological changes may contribute to a shift from the recently observed trend. As of Q1 2023, while the overall level of employment has increased by approx. +393,800 (+17.8%) since Q1 2018, this increase has not been evenly distributed across sectors and occupations. This is illustrated in Figure 1, which indicates that there has been a shift towards a more knowledge-based economy over

the past five years. Traditional sectors such as Agriculture (-14,100 or -12.5%), Other Sectors 42 (-1,000 or -0.8%) and Accommodation and Food (+2,300 or +1.4%) have seen slight declines or relatively small increases while sectors such as Human Health (+71,700 or 26%), Information & Communication (+53,100 or 46%) and Industry (+51,000 or 18.3%) have seen large growth. A similar trend can also be observed across occupations, with jobs such as Professional (+141,500 or 32.1%) and Associate Professional occupations (+84,500 or 33%) seeing the largest increases in employments. According to the CSO estimates 43 these occupations also tend to have the highest average weekly earnings.

Figure 1: Change in the number of people aged 15-89 years in Employment by NACE Sector (LHS) and Occupation (RHS), Q1 2018 to Q1 2023



Source: CSO Labour Force Survey

Figure 2 below shows EU forecasts for future job opportunities and the number of individuals required by occupation in Ireland for the period 2022 to 2035. Associate Professionals (+124,300), Professionals (+141,300) and Managers (+94,100) are the occupations projected to have the largest net increases in employment caused by the creation of new jobs/destruction of existing jobs by 2030 (CEDEFOP, 2023⁴⁴). These trends are already evident when comparing current labour market conditions with the latest data on CSO vacancy rates⁴⁵ and SOLAS's (2022) Difficult-to-fill Vacancies Survey data⁴⁶, which both show that it is difficult to find workers, particularly for science, engineering and technology, and construction occupations.

⁴² Other sectors includes arts, entertainment, recreating; other service activities and household employers.

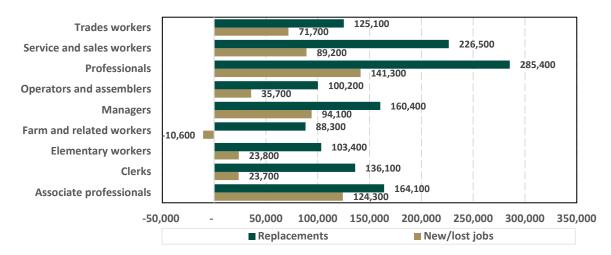
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⁴⁴ European Centre for the Development of Vocational Training (CEDEFOP) as of end May 2023. See: CEDEFOP Skills Forecast Future job openings indicator's statistical release page: Future job openings | CEDEFOP (europa.eu)

⁴⁵For further detail see: https://www.cso.ie/en/releasesandpublications/ep/pelcq/earningsandlabourcostsq32022finalq42022preliminaryestimates/

⁴⁶SOLAS Difficult-to-fill vacancies survey 2022; https://www.solas.ie/f/70398/x/2702562088/solas-difficult-to-fill-vacancies.pdf

Figure 2: Forecasted Future Job Needs (openings) in Ireland by Occupation, 2022-2035



Source: European Centre for the Development of Vocational Training (CEDEFOP). Notes: Forecasts are as of end May 2023. New/lost jobs' is the net change in employment caused by creation of new jobs and destruction of some of the existing ones. 'Replacements' capture the number of people needed to replace workers who changed jobs or left the labour market, such as retirees. 'Total job openings' is the sum of 'New/lost jobs' and 'Replacements'.

In terms of isolating the technological impact on jobs, an ESRI analysis based on 2019 data estimated that the incidence of employees experiencing skills-displacing technologies was higher for Ireland (21%) compared to the EU average (16%) (McGuinness, Pouliakas, and Redmond, 2021⁴⁷). Additional analysis of online job vacancy adverts from SOLAS has also showed that across occupations advertised, accessing and analysing digital data (49%) and using digital tools (48%) were the second and third most sought after skills by employers in 2021 (SOLAS, 2022⁴⁸).

Overall EU projections suggest that Professionals; particularly those in Teaching and Office Professionals; and Trades Workers; mainly Construction and Metal & Machinery will be the most likely occupations to experience technologically-induced replacements, while Farm Related Workers and Managers are likely to be relatively insulated from technological innovation (CEDEFOP, 2023⁴⁹). This suggests the next wave of technology adapted may somewhat reverse the trends observed in Figure 1 above. However, it should be noted that these projections and forecasts are indicative and may be impacted by technological advances going forward. The results are also likely to differ by country with Ireland experiencing different states of flux in sectors and occupations compared to the overall EU estimate.

B. Ireland's Current Labour Force

In considering the changing landscape of jobs and skills and the potential technological impact set out in section A, it is useful to set out the relevant key statistics and breakdowns of the current labour market.

⁴⁷ S.McGuinness, K.Pouliakas and P.Redmond (2021), "Skills-displacing technological change and its impact on jobs: challenging technological alarmism?", Economics of Innovation and New Technology, pp.1-23, https://www.esri.ie/publications/skills-displacing-technological-change-and-its-impact-on-jobs-challenging

displacing-technological-change-and-its-impact-on-jobs-challenging

48 National Skills Bulletin 2022; https://www.solas.ie/f/70398/x/3554445a46/national-skills-bulletin-2022.pdf

⁴⁹ Source: European Centre for the Development of Vocational Training (CEDEFOP) as of end May 2023. See: European Skills and Jobs Survey Automation risk for occupations indicator's statistical release page: <u>Automation risk for occupations | CEDEFOP (europa.eu)</u>

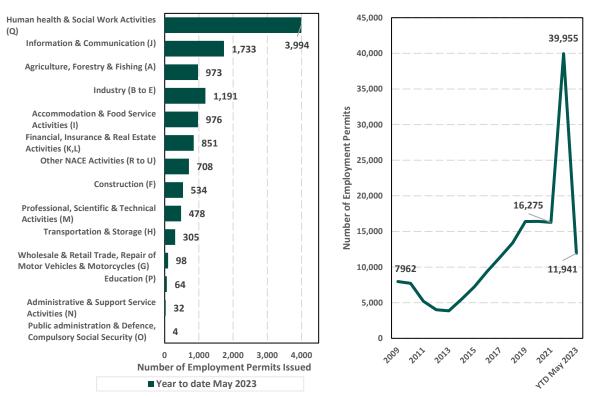
Employment and Unemployment

The level of employment in the first quarter of 2023 was 2,608,500, an increase of 4.1% (+102,700) on an annual basis and 1.9% (+49,000) on a quarterly seasonally adjusted basis. The participation rate at 64.9%, stands 3.5% above the level in Q1 of 2018, with larger increases for females (+4.6%) than males (+2.5%). As of Q1 2023, the seasonally adjusted unemployment rate is estimated at 4.1%, the lowest rate since Q2 of 2001 (4%). The youth unemployment rate (ages 15-24 years) is also low by historic standards, falling on a quarterly basis from 9.1% to 8.6% as of Q1 2023.

Work Permits

Labour market migration has been playing an increasingly important role in meeting domestic labour demand in several sectors. The number of work permits issued increased from around 8,000 in 2009 to almost 16,300 in 2019. There were nearly 40,000 issued in 2022, but this level was driven at least partly by a COVID-19 backlog. In terms of sectors, Human Health & Social work (3,994) and the IT Sector (1,733) represent the largest shares of employment permits issued to date as of May 29th 2023.

Figure 3: Snapshot of Year to Date Employment Permits Issued by Sector as of May 29th 2023 (LHS) and annual trends (RHS)



Source: Department of Enterprise Trade and Employment. **Note**: 2023 year to date employment issuances are as of May 29th 2023 and are subject to revision.

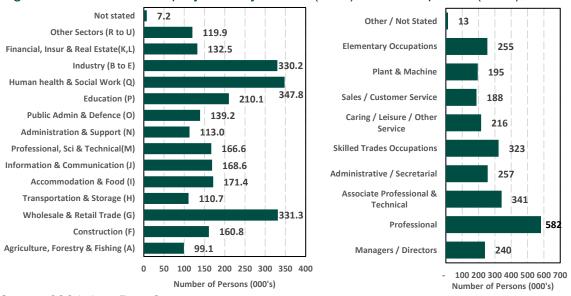
Latest Sectoral Breakdown of Employments

Human Health & Social Work (13.3%), Industry (12.7%) and Retail (12.7%) are the largest sectors in terms of employment share of the population (see Figure 4). As seen in Figure 1, the first two of these sectors have been growing significantly in their number of employments over the last five years.

Occupational Breakdown of Employments

Employment is most concentrated towards skilled occupations, with Professionals (22%), Associate Professional & Technical (13%), and Skilled Trades (12%) currently representing the most common occupations (see figure 3).

Figure 4: Persons in Employment by Sector (LHS) and Occupation (RHS), Q1 2023



Source: CSO Labour Force Survey

C. Active Labour Market Policies and Digital Delivery of Employment Services

The Current Suite of Active Labour Market Policies

INTREO is the Public Employment Service (PES) of the State and provides a professional employment service to help unemployed jobseekers secure sustainable employment. The service works in partnership with a number of contracted INTREO Partners (e.g. the National (NES) and Local Area (LAES) Employment Services). This is achieved through a case-managed approach where PES staff match jobseekers' education, qualifications, skills, work experience, and work preferences with the demand in the Labour Market. The PES also coordinates the Department's engagement with employers, representative bodies, and other stakeholders including other relevant Government Departments and agencies.

Supports available to jobseekers and employers include:

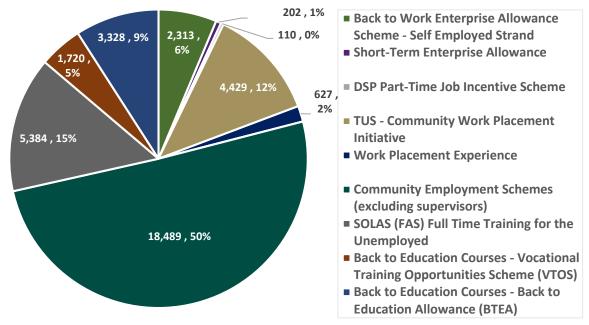
- Work Placement: the Work Placement Experience Programme (WPEP);
- <u>Employer/Enterprise incentives</u>: such as JobsPlus, the Wage Subsidy Scheme for employees with a disability, the Back to Work Enterprise allowance;
- Education and training programmes: such as the Back to Education Allowance, the Training Support Grant, referrals to Springboard+ and other further education and training programmes.
- <u>Job Matching</u>: JobsIreland.ie, the Government's national free online recruitment website matching employers and jobfinders.
- Employment Schemes: schemes such as Community Employment and TÚS designed to provide eligible long-term unemployed people and other disadvantaged persons an opportunity to engage in part-time work within their communities.

INTREO Employment Services are also available to persons not in receipt of a jobseeker's payment on a voluntary, walk-in, basis. There are a number of initiatives underway to promote these services to

specific groups who are currently not in the labour force, such as the early engagement initiative for young people with a disability.

As of April 2023, CSO data shows that there were 36,602 persons participating in programmes targeted primarily at the long-term unemployed (over 12 months) and other welfare recipients⁵⁰. This represents a decrease of approx. -2,263 (-5.8%) compared to April of last year driven by increases in the number of people in employment. Most of these participants were on Community Employment (50%) followed by SOLAS full-time training (15%) and TÚS (12%).

Figure 5: Persons availing of a range of programmes targeted primarily at the long-term unemployed (over 12 months) and other welfare recipients, April 2023



Source: CSO Live Register and DSP Administrative Data

Digital Delivery of Employment Services

DSP's Statement of Digital Strategy sets out its ambition to be a trusted digital public service provider that offers customers an easy, integrated online channel to self-serve and complete their transactions at their convenience. In Pathways to Work 2021-2025, the Department of Social Protection set out the need to adapt its model of Public Employment Service Delivery to take advantage of digital capabilities and to develop blended online/in-person delivery. There have been recent advances in these aims:

- Digital Pathways to Work (DPTW): DPTW is an online service available since February 2022
 for customers who are short-term unemployed and who have a verified MyWelfare account.
 DPTW offers information about the employment services and the supports available to
 customers in the Public Employment Service. The service is voluntary, and since its inception
 in February 2022, around 33,000 jobseekers have participated in and engaged with DPTW.
- Benefit of Work estimator: The benefit of work estimator has been made available online showing how starting work or increasing hours of work may increase a person's potential income. In the period January - March 2023 inclusive, the calculator was accessed approximately 91,800 times
- **Video Engagement:** The strategy to incorporate a platform to manage video appointments between Employment Case Officers/Job Coaches and customers provides an option to engage

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⁵⁰ Source: CSO Live Register Statistics available at: https://data.cso.ie/table/LRM14

virtually with jobseekers where appropriate. Currently in the pilot phase, the Public Employment Service is engaging with customers virtually for Employment Support appointments. To date, around 1,600 appointments have been delivered virtually using this platform.

Welfare Partners: This is a service for business partners of the Department who wish to access
Government services digitally. Business partners are organisations who engage with the
Department in respect of a number of services including access to the treatment benefit scheme
by dentists, audiologists and opticians, the redundancy and insolvency process and the Wage
Subsidy Scheme.

Exploratory work has commenced to identify new opportunities to provide further digital employment services on MyWelfare. Regarding the use of trustworthy and ethical AI in the public service, part of the Government's national digital strategy 'Harnessing Digital – The Digital Ireland Framework (2021-2025)', is focused on developing relevant principles and guidelines.



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